

GENCORP AEROJET

Integrated Advanced Microwave Sounding Unit-A (AMSU-A) Monthly Report for March 1999

Contract No: NAS5-32314

CDRL 529: (Including CDRL 004, 203, 204, and 503)

Submitted To:

National Aeronautics and Space Administration Goddard Space Flight Center Greenbelt, Maryland 20771

Submitted By:

Aerojet 1100 West Hollyvale Street Azusa, California 91702



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Section 1

INTRODUCTION

This is the 75th Monthly Report for the Advanced Microwave Sounding Unit-A (EOS/AMSU-A), Contract NAS5-32314, and covers the period from 01 March through 31 March 1999.

Included in this report are Combined Program Delivery Schedules and Reports (Section 2); a report from the Product Team Leaders on the status of all major program elements (Section 3); Contract Data Requirements List (CDRL) 503, the Weight and Power Budgets (Section 5); CDRL 204, reporting on the activities of Performance Assurance (Section 6); CDRL 203, the Configuration Management Status Report (Section 7); and the Documentation/Data Management Status Report (Section 8).

			
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Section 2

The AMSU-A and Combined Program 90 Day Window Schedule is presented as Appendix A.

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Section 3 STATUS REPORTS

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Section 3.1

PROGRAM OVERVIEW



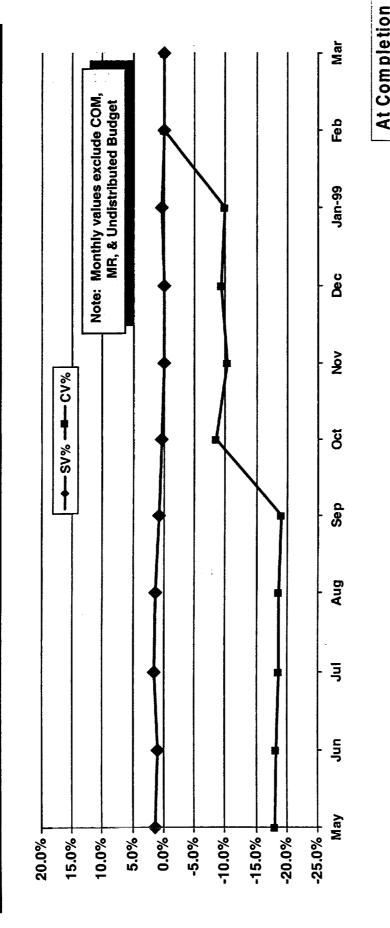
EWSS

Program Status Summary



Integrated AMSU-A Earned Value/SPI/CPI Summary





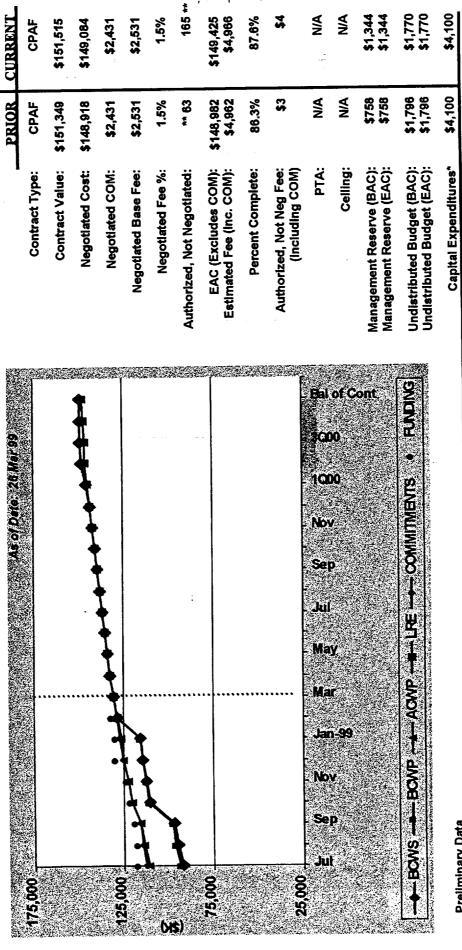
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יסויטוק	AES	149.4	149.4	149.4		2.1
ווסוז סוק וווסס זע	NASA	149.4	149.4	149.4		2.1
	Mar	130.4	130.5	130.2	0.1	0.3
	Feb	128.6	128.6	128.6	0.0	0.0
	Jan	115.6	115.2	126.7	-0.4	-11.5
	Dec		114.0	124.7	0.0	-10.6
	No V	108.1 112.0 114.2	108.5 112.0 114.0 115.2	15.6 118.2 122.6 124.7	0.0	-10.6
	0ct	108.1	108.5	118.2	0.4	-9.7
	Sep	96.5	97.1	115.6	9.0	-18.4
	Aug	94.4	92.6	113.6	1.2	-18.0
	Jul	92.1	96.5	110.9	1.4	-17.4
	Jun	89.9	90.8	107.4	6.0	-16.6
	May	87.5	9.88	104.6	1.1	-15.9
		BCWS	BCWP	ACWP	\$ AS	¢ AO

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Integrated AMSU-A Funding Status





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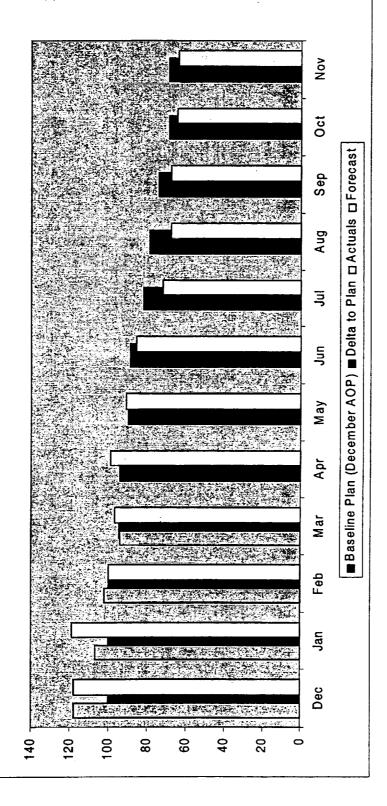
								1 A A	
	Budget	Earnings	Actuals	Schedule	Cost	Budget At	Estimate At	variance At	Budget At Estimate At Variance At 141 PEER #2 Review @ (\$22K.)
	BCWS	BCWP	ACWP	Variance	Variance	Completion	Completion Co Lpletion Completion	Completion	2. EOS S/C I&T @ \$68K.
	2170513	6138 613	E138 613	0.5	0.5	\$151.413	\$151,413 \$151,413	08	3 SIIS Support @ \$17K.
1 6 0	3140,010) }	1		***		
Mar	Mar \$130,428	\$130,462	\$130,226	S 34	\$236	\$151,515	3147,473	0 6 0 7 9	4. PLO Integ @ \$102K.



AMSU-A Staffing FY 99 Plan/Actuals/Forecast Chart



AOP Baseline Plan/February 99 PLO/Overrun Replan



107 102 94 119 100 97 99 91 86 72 68 68	Baseline Plan (December AOP) 100 Delta to Plan 0 Actuals 118 Forecast 118	Jan 93 7 107 119	n Feb 3 94 6 7 102 9 100	Mar 85 10 94 97	Apr 85 9	May 76 14 91	Jun 75 14	Jul 70 72	Aug 67 12	Sep 69 5	0ct 61 8	Nov 58 11

Template 50

C. Neves/Integrated AMSU-A

Gencorp Aerojet

Integrated AMSU-A Staffing Plan/Actuals



CONTRACTS CONTRACTS CONTROLLER ELEC & WEAPONS SYS ELECT ENGR INTEG PLANNING MANUFACTURING MATERIEL MECHANICAL ENG PRODUCT ASSURANCE TEST OPERATIONS	Data Ferecast Actuals Forecast Actuals Forecast Actuals Forecast Forecast Actuals Forecast Forecast Forecast Forecast Forecast Forecast Forecast Forecast Forecast	Feb-99 Mar-99 Apr-99 May-99 Jun-99 Jun-99 Aug-99 Sep-99 0.3
SOFTWARE ENGR		1.1 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
SYSTEMS ENG	Actuals Forecast	10.5 10.8 10.9 9.7 10.1 8.5 10.1 10.9
Total Actuals		102.4 94.3 99.2 6490.5 86.1 4 86.1 8 68.1 8 68.1 8 68.1

	Feb-99	Mar-99	Apr-99	May-99	Jun-99	Jul-99	Aug-99	Sep-99
a O v	94.0	1	85.0	76.0	75.0	70.0	0.79	
5	2::0							000
Mannower Forecast	8.66	96.5	99.5	90.2	86.1	71.8	1.00	00.5
ייים ביים ייים היים איום וויי								α ⊂
Delta	-5.8	-11.5	-14.2	-14.5		0.1-	1.1.	0.0

Requirements/Criteria for Current Award Fee/Customer Delight Period

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Current Period 1 Jan 99 - 30 Jun 99

Current Milestones

Milostono		
	Award ree Date	Status
Complete All PLO Assemblies	31 Mar 99	TBD
Complete 107 A1 & A2 Baseline		
CPT & PER	31 May 99	Complete 4/6
Complete All Receiver Assemblies	31 May 99	
Complete All Antenna Assemblies	30 Jun 99	May

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Critical Item

10

- METSAT 1 (105) In Shipping Containers Prior To Contract Delivery Date, PSR Scheduled For 28 Apr Meets Technical Requirements
 - METSAT 2 (106) Working To Expedite And Have In Shipping Container By June, Currently In Next Period Jul - Dec 99

Cost

 NASA Expressed Concerns Over Feb Management Reserve Utilization Have Met With Program Office and Cost/Business, Have Resolved Concerns



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Name	MAMMINIASSOND JEMAMINIASSOND JEMAMINIASSOND
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2590 S/N 202 A1 Top Assembly - Integration & Test	7/15 пападаталиния приничения при
2716 S.N 202 A1 Environmental Test & Shipping Config	7/13 transmissionmissionmiss 12/16
2807 S/N 202 A1 Shipping Date (Contract Date 12/1/98)	127 🗘 1216
3007 S/N 202 A2 Major Subsystem Completions	122 Commentarium manuscum serimentum mentarium manuscum manuscum and an
3014 S/N 202 A2 Top Assembly - Integration & Test	8/13 Commission commission and the commission of
3081 S/N 202 A2 Environmental Test & Shipping Config	
3183 S.N 202 A.2 Shipping Date (Contract Date 12/1/98)	121 🚓 1216
3667 S/N 105 A1 Major Subsystem Completions	9/8 типлителин принатир
3674 S/N 105 A1 Top Assembly - Integration & Test	12/3
3722 S/N 105 A1 Environmental Test & Shipping Config	
3773 SN 105 A1 Shipping Date (Contract Date 4/1/99)	4/1.
3961 S/N 105 A2 Major Subsystem Completions	9/30 mycompanian in the machine management of the machine management o
3968 SN 105 A2 Top Assembly - Integration & Test	
4013 S/N 105 A2 Environmental Test & Shipping Config	蓋
S/N 105 A2 Shipping Date (Contract Date 4/1/99)	47. (22) 47.8
4305 S/N 106 A1 Major Subsystem Completions	1/12 Equipment and a second and
4312 S/N 106 A1 Top Assembly - Integration & Test	5/21 maranen an
4349 S/N 106 A1 Environmental Test & Shipping Config	3/23 mm monetonemm 1/129
4390 S/N 106 A1 Shipping Date (Contract Date &1/99)	₹ 1,000 man 1,0
4512 S/N 106 A2 Major Subsystem Completions	
4519 S/N 106 A2 Top Assembly - Integration & Test	11/25
4559 S/N 106 A2 Environmental Test & Shipping Config	21/10 Communication (Statement Annual Contraction Cont
CAL 106 A 2 Chiming Date (Contract Date 8/1/99)	.₽ ⇔ nev

Late Projected M/S	Late M/S Complete		
Completed M/S	Sarry Projected M/S	Early M/S Complete	
Critical Path Task	Critical Path Summary	Planned M/S	
% Task Progress	Summary Progress	Management Previous Week	
B/L Task	Task	Current Summary	

C. Neves/Integrated AMSU-A

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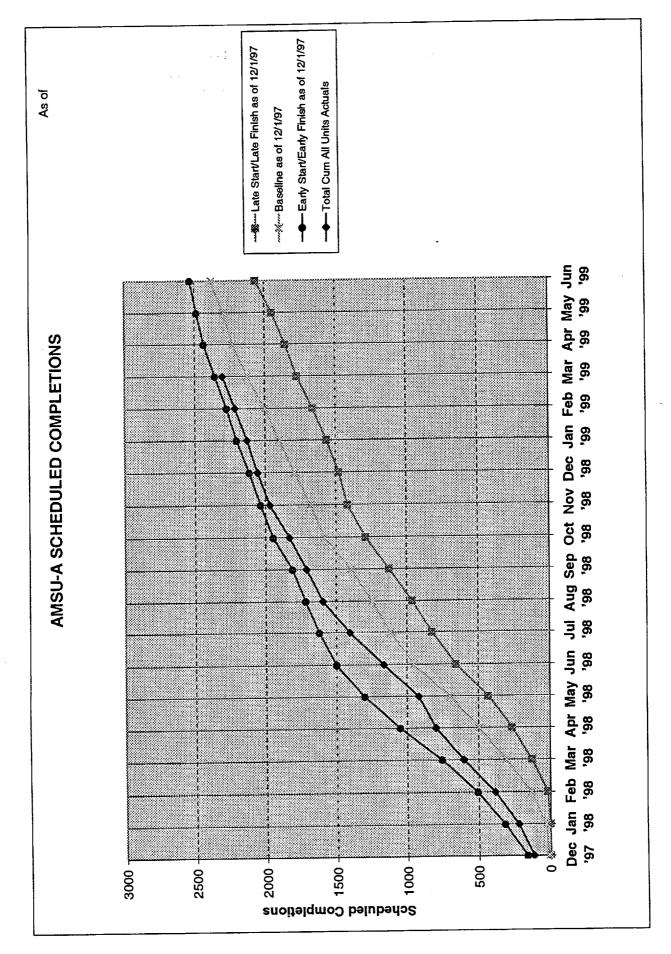
AMSU-A INTEGRATED MASTER SCHEDULE

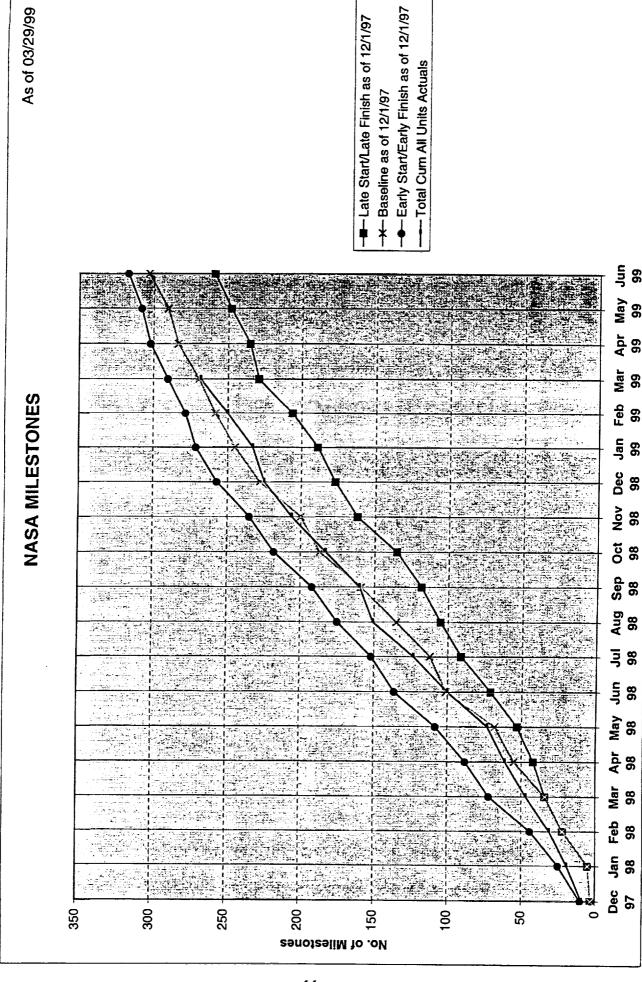


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	S/N 107 A1 Major Subsystem Completions	6/11 aumyanan	аяниры пизетальны вищенари плавык 2/4	
4880	SN 107 A1 Top Assembly - Integration & Test		10/19 demandemental main which the head francis 4/14	
4917	S/N 107 A1 Environmental Test & Shipping Config		4/13 Camputititititian	9/14
4955	S/N 107 A1 Shipping Date (Contract Date 12/1/99)			124 (
5073	SN 107 A2 Major Subsystem Completions	3/18 Emmartenennungen	пинистенския подпини 11/4	
5094	SN 107 A2 Top Assembly - Integration & Test	7/28	пипантививестичнания перводня в 4/20	
5129	SN 107 A2 Environmental Test & Shipping Config		4/2	2 kg
5166	S/N 107 A2 Shipping Date (Contract Date 12/1/99)		9	2 P
5515	S/N 108 A1 Major Subsystem Completions	8/24	зманияные выприментация применти применти применти 4/20	
5536	S/N 108 A1 Top Assembly - Integration & Test		4/5 myon is single annument	100 million 2011
5573	SN 108 A1 Environmental Test & Shipping Config		88	8/30 <u>memeryangungan</u> 1/12
2609	SN 108 A1 Shipping Date (Contract Date 4/1/00)			⇔
5745	S/N 108 A2 Major Subsystem Completions		9/8 ganteraugussungaranjangangangangan 3/1,	
5766	SN 108 A2 Top Assembly - Integration & Test		2/18 minemaniamental 2/18	7/12
2805	S/N 108 A2 Environmental Test & Shipping Config		3 8/ <i>L</i>	7/8 E 10/25
5837	S/N 108 A2 Shipping Date (Contract Date 4/1/00)			3/31 🖒
6210	SN 109 A1 Major Subsystem Completions		9/8 (пречинатурация праводнатурация предоставления 6/22	22
6231	SN 109 A1 Top Assembly - Integration & Test		6/9 English	
6272	S/N 109 A1 Environmental Test & Shipping Config			11/15
6308	SN 109 A1 Shipping Date (Contract Date 7/1/00)	The state of the s		€30 C
6479	S/N 109 A2 Major Subsystems Assembly		9/8 Innummentational passes ammunicum interests, 4/30	
6500	S/N 109 A2 Top Assembly - Integration & Test		4/15 Emmuranticum	8/25
6536	S/N 109 A2 Environmental Test & Shipping Config		8/23	23 — աշտուսարություր 12/13
6571	S/N 109 A2 Shipping Date (Contract Date 7/1/00)			6230 💠
Ш	B/L Task Progress	Critical Path Task	.	٥ (
ЦL		Critical Path Summary	Early Projected M/S	S Late MS Complete
	Current Summary Limited Previous Week	L Flanned M/S	Carly IWS Comple	

Current Summary
Temp #: 1

C. Neves/Integrated AMSU-A





INSTRUMENT	CONTRACT	JAN ME	DCI ME	FLOAT	PEC ME FLOAT	FLOAT	FLOAT	FLOAT
000	40/4/08	· ·	α Γ -		-16			-16
A1 202	06/1/71	-		_ '				
A2 202	12/16/98(A)	35	0	_	91-		91-	
Δ1 105	4/1/99	25	-53		1 -63			-27
A2 105	4/28/99(S)	61		-1			3 6	
A1 106	8/1/99	79	5		5 -10	-15	5 11	0
A2 106	2/30/99	82					6	20
A1 107	12/1/99	98	-	84			8 76	
A2 107	SFP ' 99	142			·		•	
A1 108	3/30/00	93) 78
A2 108	IAN ' 00	159		_	3 153		7 148	3 147
A1 109	8/1/00	9					•	
A2 109	APR'00	194	172		2 171	171	169	190
PROGR/	PROGRAM FLOAT	1057	730) 697	7 639	9 566	989	5 611

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3.1.1 Program Review Status

Program Quarterly Review scheduled for 27 April 1999.

3.1.2 Program Priority List for the Month of March

- 1. Complete calibration of 105 A1 and 105 A2 instruments.
- 2. Maintain support for in-house production (integration and test) activities with highest priority given to A1-106 and A2-106.
- 3. Continue integration and testing of METSAT 107 A1 and 107 A2.
- 4. Maintain support and oversight of remaining vendors (FEI and Filtronics).

		 		 	
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3.1.3 Integrated AMSU-A Action Items

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ORIGINAL CURRENT	DUE	DATE															
ORIGINAL	DUE	DATE	2/26/99	PSR	3/12/99	3/12/99	TBD	TRD	777								
		LEAD	Pines	Patel	Pines	Taylor	NASA	L.Paliwoda &	A. Nieto	Aerojet	Aerojet	Aerojet		Aerojet	Aerojet	Aerojet	
		ACTION ITEM	Identify Repair Kits for Aerojet PLO	Include K comparisons data on future PSR charts	L.O./Mixer-IF Operational Power Matrix	Plating material of Leech Relays	Provide final METOP thermal model inputs	AMSU-A1 & A2 T/V & T/C chamber EMI conflict		Add to the environmental test flow plan the engineering eval thermal cycle test	Determine which instrument will be measured for Task Order 10 METOP EMI requirements	Determine KLM taping changes required and status implementation plan	Check pulse load bus power for all instruments wrt data using new	CPT measurement method. Look at possible thermal model impact.	CCR to UIISS for turn on transient data actual METSAT	Number future PER and PSR presentation package pages	
		STATUS	C														
		SOURCE	Qtrly Rev	Telecon	Telecon	Telecon	Telecon	Telecon		PER	PER	PER		PER	PER	PER	
		41#	1/26/99-1	2/1/99-1	2/1/99-2	2/17/99-1	3/1/99-1	3/1/00-2	7-661116	3/3/99-1	3/3/99-2	3/3/99-3		3/3/99-4	3/3/99-5	3/3/66-6	
		LINE	1	2	3	4	S	¥	>	7	8	6		10	11	12	

						ORIGINAL CHRRENT	CHRRENT
						DUE	DUE
LINE	A1#	SOURCE	STATUS	ACTION ITEM	LEAD	DATE	DATE
1	2/1/99-1	Telecon		Include K comparisons data on future PSR charts	Patel	PSR	
2	2/1/99-2	Telecon	၁	L.O./Mixer-IF Operational Power Matrix	Pines	3/12/99	
3	2/17/99-1	Telecon	С	Plating material of Leech Relays	Taylor	3/12/99	
4	3/1/99-1	Telecon		Provide final METOP thermal model inputs	NASA	4/5/99	
5	3/3/99-1	PER		Add to the environmental test flow plan the engineering eval thermal cycle test	Aerojet	PSR A1 106	
9	3/3/99-2	PER	C (107)	Determine which instrument will be measured for Task Order 10 METOP EMI requirements	Aerojet	3/12/99	
7	3/3/99-3	PER		Determine KLM taping changes required and status implementation plan	Alvarez	(See 11) TBD	
8	3/3/99-4	PER		Check pulse load bus power for all instruments wrt data using new CPT measurement method. Look at possible thermal model impact.	Aerojet	3/26/99	
6	3/3/99-5	PER	၁	CCR to UIIS for turn on transient data actual METSAT waveforms	Patel	3/12/99	
10	3/3/66-6	PER		Number future PER and PSR presentation package pages	Platt	PSR 105	
11	3/8/99-1	Telecon		Provide corrected Lockheed Martin KLM thermal model data	NASA	4/1/99	

						ORIGINAL CURRENT	CURRENT
	3 7 4					DUE	DUE
LINE	AI#	SOURCE	STATUS	ACTION ITEM	LEAD	DATE	DATE
1	2/1/99-1	Telecon		Include K comparisons data on future PSR charts	Patel	DOD	
2	3/1/99-1	Telecon		Provide final METOP thermal model inputs	NASA	4/5/90	
ю	3/3/99-1	PER		Add to the environmental test flow plan the engineering eval	A Section	COLUMN ADA	
				thermal cycle test	Aerojet	FSK A1 100	
4	3/3/99-3	PFR		Determine KLM taping changes required and status			
				implementation plan	Alvarez	(See 7) TBD	
:			ţ	Check pulse load bus power for all instruments wrt data using new			
r.	3/3/99-4	PER	J	CPT measurement method. Look at possible thermal model	Aerojet	3/26/99	
				impact.	,		
9	3/3/99-6	PER		Number future PER and PSR presentation package pages	Dlatt	Dep 105	
7	3/8/99-1	Telecon		Provide corrected I ockheed Martin VI M thamas 1 4.1 1.1	, late	COL NO I	
				The corrected population which inclinal model data	NASA	4/1/99	

						ORIGINAL CURRENT	CUKKENT
						DUE	DUE
INE	A 1#	SOURCE	STATUS	ACTION ITEM	LEAD	DATE	DATE
-	2/1/00-1	Telecon	J	Include K comparisons data on future PSR charts	Patel	PSR	
,	3/1/00-1	Telecon		Provide final METOP thermal model inputs	NASA	4/5/99	
3 (1 00/6/6	DED		Add to the environmental test flow plan the engineering eval	Aerojet	PSR A1 106	
n	3/3/99-1	FER		thermal cycle test	,		
•	00000	d.		Determine KLM taping changes required and status	Alvarez	(See 7) TBD	
4	5/5/99-3	FEK		implementation plan			
4	9-66/8/8	PFR	٦	Number future PER and PSR presentation package pages	Platt	PER 105	
	2/0/00 1	Telecon		Provide corrected Lockheed Martin KLM thermal model data	NASA	4/1/99	
<u>-</u>	7-66/0/6				,		

- 3.2 Weekly Reports
- 3.2.1 Mechanical/Thermal/Antenna Subsystem Following are the Mechanical/Thermal/Antenna Subsystem Weekly Reports.

MECHANICAL/THERMAL/ANTENNA TEAM WEEKLY REPORT FOR WEEK ENDING 3/03/99

Accomplishments Last Week:

1. ANTENNA MACHINED SUBASSEMBLIES

A1 Antenna Subassy-Machined (S/N 109) - In process. This is the Last Unit.

The unit is being machined. The baseline schedule due date for this unit is 4/13/99.

2. ANTENNA ASSEMBLIES

S/N 108 A1 Antenna Assembly - In Process

Troubleshooting of beampointing problem is complete. Feedhorn spacers were misaligned. Spacers have been corrected.

S/N 108 A2 Antenna Assembly - COMPLETE

The S/N 108 A2 Antenna Assembly is complete and has been turned over to Systems Integration.

S/N 109 A2 Antenna Assembly - In Process

The kit for the assembly is pulled and the assembly is started. Optical alignment of the feedhorn/secondary reflector is in process.

KLM A1 Thermal Analysis

Temperature predictions for 02 January 1999 match in orbit data within 2°C. Improvement of 1°C can be achieved by adding 10 mil silvered Teflon tape to exposed aluminum areas on connector panel.

KLM A2 Thermal Analysis

Correlation to the flight temperatures is not within ± 3°C. Temperature predictions for 19 June 1998 are 7°C cooler than the flight data. Temperature predictions for 02 January 1999 are 14°C cooler than the flight data. Work is underway to improve the correlation.

The correlation problem may be caused by uncertainty in the geometric model of the spacecraft. Aerojet requests that Lockheed-Martin review the geometric model used by Aerojet of the spacecraft surrounding the A2 instrument. In addition, Aerojet needs the range of solar array positions and solar array positions and solar array position for maximum heat load.

The KLM thermal analysis is on hold until the Lockheed-Martin information is received. The Lockheed-Martin information will be available 01 April 1999 per NASA.

METSAT A1 & A2 Model Correlation

The thermal balance correlation work is continuing.

EOS Reduced Models

The reduced thermal models will not be updated until the METSAT A1/A2 and the new L & M model work is complete. This will be started in early May.

Concerns

The A2 – K unit is running at higher temperatures then model predictions. Correlation will continue when spacecraft information is received. However, the AMSU A1/A2 correlation developed from flight data should not be used for METOP or EOS thermal models. This will eliminate the possibility of correlating the model to accommodate spacecraft (TIROS) model errors.

F/AR Status

- 3. F/AR 160, METSAT/AMSU-A2, P/N 1331200-2, S/N 105 (J. Alvarez' Team)
 F/AR signed and submitted to NASA.
 The shift in resonant frequency was caused by cracks in bonded reflector joints. After repair of reflector S/N 003, it was reinstalled on AMSU-A2, S/N 105.
- 4. F/AR 161, A1 Antenna Assembly, P/N 1331400-2, S/N F03. (J. Alvarez' Team)
 Follow-up FRB meeting conducted to discuss latest test anomaly and review/approve troubleshooting plan. The original beamwith anomaly was eliminated after replacement of the feedhorn. However after disassembly, to allow alodyning of the new feedhorn, and reassembly, the pattern testing was restarted and the beam pointing angles again failed to meet specification.

The FRB approved the following plan.

- Remove feedhorn/shroud assembly and rotate 180 degrees and replace in assembly. Repeat pattern checks.
- If feedhorn rotation does not help pointing angles, remove feedhorn/shroud assembly from unit and realign spacers at throat of horn. Reassemble and repeat pattern checks. Realign and reassemble as required.

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If the above steps do not solve the problem, reconvene the FRB

Mechanical/Thermal/Antenna Weekly Page 3

Item	Part Number	Quantity Required	Quantity Complete	Quantity In Process
A1 Warm Load	1331381-1	12	12	0
A1 Calibration	1331380-1	12	12	0
Source	200 200 2			•
A2 Warm Load	1331236-1	6	6	0
A2 Calibration	1331235-1	. 6	6	0
Source				
A1 Drive Housing	1333998-1	13	13	0
Subassembly			10	0
A1 Rotating	1333647-1	13	13	0
Assembly			12	1
A1 Drive Assembly	1333640-1	13	7	0
A2 Drive Housing	1333999-1	7	/	U
Subassembly	1000(51.1	7	7	0
A2 Rotating	1333651-1	/	/	Ĭ
Assembly	1333650-1	7	6	1
A2 Drive Assembly	1333660-1	6	5	1
A2 compensator Assembly	1333000-1			
Al Reflector	1355777-1	12	12	0
Assembly	13337771			
A2 Reflector	1355835-1	7	7	0
Assembly				
Al Antenna	1356403-1	1	1-S/N 202	0
Assembly- EOS				
A2 Antenna	1331210-2	1	1-S/N 202	
Assembly- EOS				
Al Antenna	1331400-2	5	1-S/N 105	1-S/N 109
Assembly-			1-S/N 106 1-S/N 107	1-5/19 109
METSAT/METOP			1-S/N 107 1-S/N 108	
			1-5/14 100	
A2 Antenna	1331210-3*	5	1-S/N 105	
Az Antenna Assembly-	1331210-3		1-S/N 106	1-S/N 109
METSAT/METOP			1-S/N 107	
			1-S/N 108	
A2 Compensator	1333660-1	1	1	0
Engineering Model				
Replacement				

All dates for completion of the assemblies listed above can be found in the monthly schedule delivered to NASA.

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	TELEBOAY STREET	
VENDOR	ITEM	EXPECTED COMPLETION
Barden Corporation	Bearing Evaluation P/N 1338265-1	Complete- In Review
	Bearing Rework 6 ea. Bearing Sets P/N 1338266-1	Complete
	Bearing Rebuild 3 ea. Bearing Sets P/N 1338266-2	Complete – SDAR in process for Improper marking.
Ball Aerospace	Bearing Lubrication 6 ea. Bearing Sets P/N 1338266-1	9 April 1999
	3 ea. Bearing Sets P/N 1338266-2	9 April1999
Axsys	Motor Evaluation 1 ea. A1 Drive Motor P/N 1331392	Complete

STATUS	Complete	Complete	On TAR for out of spec commutation spikes. Evaluation at vendor complete. No problem found. Motor being returned to Aerojet.	Complete	Complete	Vibration response out of family But did not fail. Electrical tests passed. Effect of shaft nut torque on vibe response being investigated.	During pre-vibe electrical tests it was discovered that the motor winding is open (probable break in wire). Removal of motor from drive assembly is in process in preparation for returning motor to vendor (Axsys) for rework/repair.	Complete	Bearings would not fit on shaft. Measurement indicates bearing ID is too small. New bearings in process at Barden/Ball will be checked for fit to shaft.
MOTOR STATUS INSTRUMENT	S/N 202	S/N 105 – 109	SPARE	S/N 202	S/N 105-108	S/N 109	Spare	S/N 105-109	Spare
DRIVE	A1			A2				Compensator	

MECHANICAL/THERMAL/ANTENNA TEAM WEEKLY REPORT FOR WEEK ENDING 3/03/99

Accomplishments Last Week:

1. ANTENNA MACHINED SUBASSEMBLIES

A1 Antenna Subassy-Machined (S/N 109) - In process. This is the Last Unit. The unit is being machined. The baseline schedule due date for this unit is 4/13/99.

2. ANTENNA SSEMBLIES

S/N 108 A1 Antenna Assembly - In Process

Troubleshooting of beampointing problem is complete. Feedhorn spacers were misaligned. Spacers have been corrected. Beam efficiency patterns in process.

S/N 108 A2 Antenna Assembly - COMPLETE

The S/N 108 A2 Antenna Assembly is complete and has been turned over to Systems Integration.

S/N 109 A2 Antenna Assembly - In Process

The kit for the assembly is pulled and the assembly is started. Optical alignment of the feedhorn/secondary reflector is in process.

KLM A2 Thermal Analysis

Shipping configuration 1338394-1 of April 1994 shows aluminized edge tape was used on A2. New heat rate runs are in process with this tape.

METSAT A1 & A2 Model Correlation

The thermal balance correlation work is complete. Reports are in process.

EOS Reduced Models

The reduced thermal models will not be updated until the METSAT A1/A2 and the new L & M model work is complete. This will be started in early May.

Concerns

The A2 – K unit is running at higher temperatures than model predictions. Correlation will continue when spacecraft information is received. However, the AMSU A1/A2 correlation developed from flight data should not be used for METOP or EOS thermal models. This will eliminate the possibility of correlating the model to accommodate spacecraft (TIROS) model errors.

F/AR Status

3. F/AR 171, METSAT/AMSU-A1, P/N 1331720-2, S/N 105 (J. Alvarez's Team) Final draft routed for review/comment.

Post Random Low Level Sine had shown a resonance at ~120 Hz that was not readily apparent at Pre Random Low Level Sine. All of the accelerometers at various locations on the instrument indicated similar results. The pre Random Vibration Low Level Sine Sweep showed a natural frequency at 138 Hz. The post vibration still had a peak at ~130 Hz, in addition to the new peak at ~120 Hz.

The test anomaly was verified at several locations on the unit including the instrument Top Panel, the upper & lower Reflector and the upper & lower motor. The pre Random Vibration Low Level Sine Sweep showed a natural frequency at 129 Hz while the post vibration data still had a peak at ~130 Hz, in addition to the new peak at ~120 Hz.

An extensive troubleshooting plan was carried out with the following significant results.

- (1) Review of the KLM and the finite element vibration model showed a predicted resonant frequency of ~120 Hz as seen in the actual vibration data.
- (2) The pre-load torque value for all externally mounted screws without bonded heads was verified and a close detailed inspection of the instrument revealed no obvious visible anomalies.
- (3) X-Axis Acceptance level vibration testing was performed.
- (4) Responses before and after the X-Axis vibration in the pre and post sine displays were nearly identical confirming the Instrument was stable with no "settling in."
- (5) A Limited Performance Test (LPT) was performed following vibration with the Instrument passing test with no discrepancies noted.

The A1 instrument is considered to have satisfied the Qualification Level Vibration tests having passed the LPTs after Z and X-Axis vibration testing and the more involved Comprehensive Performance Test (CPT) after the Y-Axis Vibration testing.

3. F/AR 179, METSAT/AMSU-A2, P/N 1331200-2, S/N 106 (J. Alvarez's Team) Follow-up FRB meetings were held on 3/4 and 3/9. This F/AR addresses the shift in first natural frequency experienced after Z-axis random vibration test of METSAT/AMSU-A2, P/N 1331200-2, S/N 106.

The action approved on 2/15/99 was to reassemble the 106 AMSU-A2 instrument and perform a Z-axis, ¼ G sine sweep. The sine sweep indicated that the unit had a first natural frequency of 111 Hz, which is higher than the previous sine sweep but lower than the first natural frequency of about 122 Hz that was seen before the Z-axis vibration test.

FRB Meeting on 3/4/99

The FRB recommendations included on the attached FRB summary were discussed at length and the following was decided:

- 1) At this time, we will continue with the 106-A2 instrument as the qualification unit.
- 2) The 107-A2 instrument will continue on its normal path of integration and test.
- 3) The Electronics Team will develop a detailed plan for troubleshooting the 106-A2 motor and drive electronics. Consideration will be given to the NASA recommendation to remove the motor and reflector, install on the engineering model and attempt to adjust (i.e. obtain step response, overshoot and gain margin within specification).
- 4) The FRB will reconvene to review/approve the troubleshooting plan.

FRB Meeting on 3/9/99

The following troubleshooting plan was approved.

- 1) Substitute a W3 Cable and Scan Drive Transistor/Diode Assembly from stock with the cable assembly currently in the unit. This can be done external to the unit without removing the original cable. With the new cable, perform scan drive Select-At-Test resistor changes using engineering CCAs to attempt to pass step response and gain margin. If the system passes, the cable will be permanently changed and the removed cable subjected to further fault isolation after FRB.
- 2) In parallel with (1) above, send FO8 motor to the antenna range to determine a detent digital word so that an engineering EPROM can be burned. If (1) above fails, temporarily install the FO8 motor in 106A2 without removing the motor cable completely. With the new motor, perform scan drive Select-At-Test resistor changes using engineering CCAs to attempt to pass step response and gain margin. If the system passes call for FRB and consider assigning FO8 motor to 106A2. If the system doesn't pass, propose new troubleshooting plan through FRB.

4. F/AR 186, A2, Drive Assembly, P/N 1333650-1, S/N F05 (J. Alvarez's Team)
Follow-up FRB meetings were held on 3/5 and 3/9. This F/AR addresses the motor turn-on failure. Troubleshooting determined that the motor winding were okay (not open).

FRB Meeting on 3/5/99

The FRB approved the following plan.

- Remove motor from Drive Assembly housing. Completed 3/5/99.
- Check shaft torque of Rotating Assembly. Completed 3/5/99 measured 0.9 to 1.0 in-lbs., in spec.
- Reinstall motor. Completed 3/5/99.
- Check torque required to rotate shaft and compare to other motors. Not measured.
- Wire connector and run preliminary electrical check of motor. If ok close FAR and continue assembly. If not ok reconvene FRB. Completed 3/5/99. Results were the same as previous measurements, slow speed and high current. Did not meet spec.

FRB Meeting on 3/9/99

The FRB approved the following plan.

- Obtain program office and NASA permission to use a KLM spare motor, P/N 1333648-1.
- Temporarily install KLM motor in S/N F05 Drive Assembly and perform commutation and no-load speed test.
- If the Drive Assembly passes the specification requirements, upgrade motor from "B" revision to current minimum mandatory "F" revision.
- Reassemble S/N F05 Drive Assembly with KLM motor and continue acceptance testing.

		Quantity	Quantity	Quantity In Process
Item	Part Number	Required	Complete	
A1 Warm Load	1331381-1	12	12	0
A1 Calibration	1331380-1	12	12	0
Source				
A2 Warm Load	1331236-1	6	6	0
A2 Calibration	1331235-1	6	6	0
Source				
A1 Drive Housing	1333998-1	13	13	0
Subassembly				
A1 Rotating	1333647-1	13	13	0
Assembly				
A1 Drive Assembly	1333640-1	13	12	1
A2 Drive Housing	1333999-1	7	7	0
Subassembly				
A2 Rotating	1333651-1	7	7	0
Assembly				
A2 Drive Assembly	1333650-1	7	6	1
A2 compensator	1333660-1	6	5	1
Assembly				
A1 Reflector	1355777-1	12	12	0
Assembly				
A2 Reflector	1355835-1	7	7	0
Assembly				
Al Antenna	1356403-1	1	1-S/N 202	0
Assembly- EOS				
A2 Antenna	1331210-2	1	1-S/N 202	
Assembly- EOS			1 22 1 1 2 5	
A1 Antenna	1331400-2	5	1-S/N 105	1 001 100
Assembly-		·	1-S/N 106	1-S/N 109
METSAT/METOP			1-S/N 107	
			1-S/N 108	
	1071010 01		1-S/N 105	
A2 Antenna	1331210-3*	5	1-S/N 103 1-S/N 106	1-S/N 109
Assembly-			1-S/N 100 1-S/N 107	1.0/11109
METSAT/METOP			1-S/N 107	
10.5	1222770 1	1	1	0
A2 Compensator	1333660-1	1	1	
Engineering Model				
Replacement				

All dates for completion of the assemblies listed above can be found in the monthly schedule delivered to NASA.

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VENDOR STATUS

	VENDOR STATES	
VENDOR	ITEM	EXPECTED COMPLETION
Barden Corporation	Bearing Evaluation P/N 1338265-1	Complete- In Review
	Bearing Rework 6 ea. Bearing Sets P/N 1338266-1	Complete
	Bearing Rebuild 3 ea. Bearing Sets P/N 1338266-2	Complete – SDAR in process for Improper marking.
Ball Aerospace	Bearing Lubrication 6 ea. Bearing Sets P/N 1338266-1	9 April 1999
	3 ea. Bearing Sets P/N 1338266-2	9 April1999
Axsys	Motor Evaluation 1 ca. A1 Drive Motor P/N 1331392	Complete

	STATUS	Complete	Complete	On TAR for out of spec commutation spikes. Evaluation at vendor complete. No problem found. Motor being returned to Aerojet.	Complete	Complete	Vibration response out of family But did not fail. Electrical tests passed. Effect of shaft nut torque on vibe response being investigated.	Motor was retested and is slow and over current. Spare KLM motor is being installed for check out.	Complete	Bearings would not fit on shaft. Measurement indicates bearing ID is too small. New bearings in process at Barden/Ball will be checked for fit to shaft.
MOTOR STATUS	INSTRUMENT	S/N 202	S/N 105 – 109	SPARE	S/N 202	S/N 105 – 108	S/N 109	Spare	S/N 105 – 109	Spare
	DRIVE	A1	,	<i>(</i>	A2				Compensator	

MECHANICAL/THERMAL/ANTENNA TEAM WEEKLY REPORT FOR WEEK ENDING 3/17/99

Accomplishments Last Week:

1. ANTENNA MACHINED SUBASSEMBLIES

A1 Antenna Subassy-Machined (S/N 109) - In process. This is the Last Unit. The unit is being machined. The baseline schedule due date for this unit is 4/13/99.

2. ANTENNA SSEMBLIES

S/N 108 A1 Antenna Assembly - In Process

Antenna pattern tests are in process.

S/N 109 A2 Antenna Assembly - In Process

The kit for the assembly is pulled and the assembly is started. Optical alignment of the feedhorn/secondary reflector has been completed. L Assembly of the A2 Drive Assembly using the KLM spare motor is in process.

KLM A2 Thermal Analysis

Shipping configuration 1338394-1 of April 1994 shows aluminized edge tape was used on A2. New heat rate runs are in process with this tape.

METSAT A1 & A2 Model Correlation

The thermal balance correlation work is complete. Reports are in process.

METSAT A1 & A2 Orbital Predictions

METSAT A1 & A2 orbital predictions are underway with the correlated thermal models.

Concerns

The A2 – K unit is running at higher temperatures than model predictions. Correlation will continue when spacecraft information is received. However, the AMSU A1/A2 correlation developed from flight data should not be used for METOP or EOS thermal models. This will eliminate the possibility of correlating the model to accommodate spacecraft (TIROS) model errors.

F/AR Status

3. F/AR 107, Antenna Subassembly, A1-1, P/N 1331400-2, S/N F03 (J.Alvarez' Team)

Final F/AR completed, signed and submitted to NASA Corrective Actions were as follows:

- (1) The discrepant A1-1 Feedhorn Assembly S/N 03 was replaced with a new Feedhorn Assembly S/N 07.
- (2) The A1-1 Antenna Subassembly S/N F03 was retested with the new Feedhorn Assembly S/N 07 and passed all testing at the Antenna Range.
- (3) The discrepant A1-1 Feedhorn Assembly S/N 03 was reworked (including deburring and removal of debris) to conform to the drawing specifications.
- (4) The reworked A1-1 Feedhorn Assembly S/N 03 was installed and tested on the A1-1 Antenna Subassembly 1331400-2 S/N F04. With the reworked Feedhorn Assembly installed the 89 GHz Crosstrack Beamwidth and Beampointing measured within specification limits verifying the functionality of the Feedhorn Assembly.

The action to prevent recurrence is to disassemble all remaining feedhorns and inspect for burrs and debris, and rework as necessary.

4. F/AR 171, METSAT/AMSU-A1, P/N 1331720-2, S/N 105 (J. Alvarez' Team) Final F/AR signed and submitted to NASA.

Post Random Low Level Sine had shown a resonance at ~120 Hz that was not readily apparent at Pre Random Low Level Sine. All of the accelerometers at various locations on the instrument indicated similar results. The pre Random Vibration Low Level Sine Sweep showed a natural frequency at 138 Hz. The post vibration still had a peak at ~130 Hz, in addition to the new peak at ~120 Hz.

The test anomaly was verified at several locations on the unit including the instrument Top Panel, the upper & lower Reflector and the upper & lower motor. The pre Random Vibration Low Level Sine Sweep showed a natural frequency at 129 Hz while the post vibration data still had a peak at ~130 Hz, in addition to the new peak at ~120 Hz.

An extensive troubleshooting plan was carried out with the following significant results.

- (1) Review of the KLM and the finite element vibration model showed a predicted resonant frequency of ~120 Hz as seen in the actual vibration data.
- (2) The pre-load torque value for all externally mounted screws without bonded heads was verified and a close detailed inspection of the instrument revealed no obvious visible anomalies.
- (3) X-Axis Acceptance level vibration testing was performed.
- (4) Responses before and after the X-Axis vibration in the pre and post sine displays were nearly identical confirming the Instrument was stable with no "settling in."
- (5) A Limited Performance Test (LPT) was performed following vibration with the Instrument passing test with no discrepancies noted.

The A1 instrument is considered to have satisfied the Qualification Level Vibration tests having passed the LPTs after Z and X-Axis vibration testing and the more involved Comprehensive Performance Test (CPT) after the Y-Axis Vibration testing.

		Quantity	Quantity	Quantity In
Item	Part Number	Required	Complete	Process
A1 Warm Load	1331381-1	12	12	0
A1 Calibration Source	1331380-1	12	12	0
A2 Warm Load	1331236-1	6	6	0
A2 Calibration Source	1331235-1	6	6	0
A1 Drive Housing Subassembly	1333998-1	13	13	0
A1 Rotating Assembly	1333647-1	13	13	0
A1 Drive Assembly	1333640-1	13	12	1
A2 Drive Housing Subassembly	1333999-1	7	7	0
A2 Rotating Assembly	1333651-1	7	7	0
A2 Drive Assembly	1333650-1	7	6	1
A2 compensator Assembly	1333660-1	6	5	1
A1 Reflector Assembly	1355777-1	12	12	0
A2 Reflector Assembly	1355835-1	7	7	0
A1 Antenna Assembly- EOS	1356403-1	1	1-S/N 202	0
A2 Antenna Assembly- EOS	1331210-2	1	1-S/N 202	
A1 Antenna Assembly- METSAT/METOP	1331400-2	5	1-S/N 105 1-S/N 106 1-S/N 107	1-S/N 109 1-S/N 108
A2 Antenna Assembly- METSAT/METOP	1331210-3*	5	1-S/N 105 1-S/N 106 1-S/N 107 1-S/N 108	1-S/N 109
A2 Compensator Engineering Model Replacement	1333660-1	1	1	0

All dates for completion of the assemblies listed above can be found in the Monthly schedule delivered to NASA.

VENDOR STATUS

		MOITH INTO THE PARTY
VENDOR	ITEM	EXPECTED COMPLETION
Barden Corporation	Bearing Evaluation P/N 1338265-1	Complete- In Review
	Bearing Rework 6 ea. Bearing Sets P/N 1338266-1	Complete
	Bearing Rebuild 3 ea. Bearing Sets P/N 1338266-2	Complete – SDAR Complete. All bearings sent to Ball for lubrication.
Ball Aerospace	Bearing Lubrication 6 ea. Bearing Sets P/N 1338266-1	30 April 1999
	3 ea. Bearing Sets P/N 1338266-2	30 April1999
Axsys	Motor Evaluation 1 ea. A1 Drive Motor P/N 1331392	Complete

STATIS	Complete	Complete	On TAR for out of spec commutation spikes. Evaluation at vendor complete. No problem found. Motor has been returned to Aerojet. This motor and the spare A2 motor will be investigated by a joint Aerojet and Axsys team in April.	Complete	Complete	Vibration response out of family But did not fail. Electrical tests passed. Effect of shaft nut torque on vibe response being investigated.	Motor was retested and is slow and over current. Spare KLM motor is being installed for check out. This motor and the spare A1 motor will be investigated by a joint Aerojet and Axsys team in April.	Complete	Bearings would not fit on shaft. Measurement indicates bearing ID is too small. New bearings in process at Barden/Ball will be checked for fit to shaft.
MOTOR STATUS INSTRUMENT	S/N 202	S/N 105 – 109	SPARE	S/N 202	S/N 105 – 108	S/N 109	Spare	S/N 105 – 109	Spare
DRIVE	A1			A2				Compensator	

MECHANICAL/THERMAL/ANTENNA TEAM WEEKLY REPORT FOR WEEK ENDING 3/24/99

Accomplishments Last Week:

1. ANTENNA MACHINED SUBASSEMBLIES

Al Antenna Subassy-Machined (S/N 109) - In process. This is the Last Unit.

The unit is being machined and continues to be on schedule. The baseline schedule due date for this unit is 4/13/99.

2. ANTENNA ASSEMBLIES

S/N 108 A1 Antenna Assembly - In Process

Antenna pattern tests are in process. Testing is continuing as planned.

S/N 109 A2 Antenna Assembly - In Process

The kit for the assembly is pulled and the assembly is started. Optical alignment of the feedhorn/secondary reflector has been completed. Assembly of the A2 Drive Assembly using the KLM spare motor is in process. The FO8 motor will be used in this assembly.

KLM A2 Thermal Analysis

Shipping configuration 1338394-1 of April 1994 shows aluminized edge tape was used on A2. New heat rate runs are in process with this tape.

Aerojet is awaiting input from NASA/Lockheed for the spacecraft thermal models. Additional work on the models will not take place until the spacecraft thermal models have been reviewed by NASA/Swales/Lockheed. (See concerns section within this weekly report).

METSAT A1 & A2 Model Correlation

The thermal balance correlation work is complete. Reports will be complete before the end of March.

METSAT A1 & A2 Orbital Predictions

METSAT A1 & A2 orbital predictions are underway with the correlated thermal models.

Concerns

The A2 – K unit is running at higher temperatures than model predictions. Correlation will continue when spacecraft information is received. However, the AMSU A1/A2 correlation developed from flight data should not be used for METOP or EOS thermal models. This will eliminate the possibility of correlating the model to accommodate spacecraft (TIROS) model errors.

F/AR Status

- 3. F/AR 072, Compensator, P/N 1333660-1, S/N F06 (J. Alvarez's Team) F/AR approved by NASA
- 4. F/AR 081, A2 Reflector Assembly, P/N 1355835, S/N 008, 009 (J. Alvarez's Team)
 F/AR approved by NASA
- 5. F/AR 086, A2 Antenna Assembly, P/N 1331210-3, S/N F03 (J. Alvarez's Team)
 F/AR approved by NASA
- F/AR 096, Secondary Reflector Housing (braze joint cracks), P/N 1333382-1, (J. Alvarez's Team)
 F/AR approved by NASA
- 7. F/AR 100, Compensator (Thermistor Assy. Miswiring), P/N 1333660-1, S/N F09 (J. Alvarez's Team)
 F/AR approved by NASA
- 8. F/AR 107, A1-1 Antenna Subassembly (Feedhorn burrs and debris).
 P/N 1331400-2, S/N F03 (J. Alvarez's Team)
 F/AR approved by NASA.
- 9. F/AR 171, METSAT/AMSU-A1(New resonance post X-axis vibe), P/N 1331720-2, S/N 105 (J. Alvarez's Team)
 F/AR approved by NASA
- 10. F/AR 181, METSAT/AMSU-A1(Feedhorn PRT readings), P/N 1331720-2, S/N 105 (J. Alvarez's Team)
 F/AR approved by NASA

Item	Part Number	Quantity Required	Quantity Complete	Quantity In Process
	1331381-1	12	12	0
A1 Warm Load	1331381-1	12	12	0
A1 Calibration	1331360-1	12		
Source A2 Warm Load	1331236-1	6	6	0
	1331235-1	6	6	0
A2 Calibration	1551255-1	· ·		•
Source	1333998-1	13	13	0
A1 Drive Housing	1333990-1			
Subassembly	1333647-1	13	· 13	0
A1 Rotating	1333047-1	15		
Assembly	1333640-1	13	12	1
A1 Drive Assembly	1333999-1	7	7	0
A2 Drive Housing	1555999-1	/	İ	
Subassembly	1333651-1	7	7	0
A2 Rotating	1555051-1	,	· ·	
Assembly	1333650-1	7	6	1
A2 Drive Assembly	1333660-1	6	5	1
A2 compensator	1555000-1			
Assembly	1355777-1	12	12	0
A1 Reflector	1555///-1	12		
Assembly A2 Reflector	1355835-1	7	7	0
	1555655-1	,		
Assembly A1 Antenna	1356403-1	1	1-S/N 202	0
	1550405-1	•		
Assembly- EOS A2 Antenna	1331210-2	1	1-S/N 202	
Assembly- EOS	13312102	-		
Al Antenna	1331400-2	5	1-S/N 105	
Assembly-	1551400 2		1-S/N 106	1-S/N 109
METSAT/METOP			1-S/N 107	1-S/N 108
WILL ISKINILLI OI				
A2 Antenna	1331210-3*	5	1-S/N 105	
Assembly-			1-S/N 106	1-S/N 109
METSAT/METOP			1-S/N 107	
METOVINETOL			1-S/N 108	
A2 Compensator	1333660-1	1	1	0
Engineering Model				
Replacement				

All dates for completion of the assemblies listed above can be found in the Monthly schedule delivered to NASA.

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VENDOR	ITEM	EXPECTED COMPLETION
Barden Corporation	Bearing Evaluation P/N 1338265-1	Complete- In Review
	Bearing Rework 6 ea. Bearing Sets P/N 1338266-1	Complete
	Bearing Rebuild 3 ea. Bearing Sets P/N 1338266-2	Complete – SDAR Complete. All bearings sent to Ball for lubrication.
Ball Aerospace	Bearing Lubrication 6 ea. Bearing Sets P/N 1338266-1	30 April 1999
	3 ea. Bearing Sets P/N 1338266-2	30 April1999
Axsys	Motor Evaluation 1 ea. A1 Drive Motor P/N 1331392	Complete

MOTOR STATUS

indicates bearing ID is too small. New bearings in process at Barden/Ball will be checked for fit Bearings would not fit on shaft. Measurement investigated by a joint Aerojet and Axsys team On TAR for out of spec commutation spikes. current. Spare KLM motor is being installed Evaluation at vendor complete. No problem found. Motor has been returned to Aerojet. motor will be investigated by a joint Aerojet for check out. This motor and the spare A1 This motor and the spare A2 motor will be Motor was retested and is slow and over STATUS and Axsys team in April. Complete Complete Complete Complete Complete Complete n April. to shaft. INSTRUMENT S/N 105 - 109 S/N 105 - 108 S/N 105 – 109 S/N 202 SPARE S/N 109 S/N 202 Spare Spare Compensator DRIVE A

3.2.2 Receiver Subsystem - Following are the Receiver Subsystem Weekly Reports.

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AMSU-A RECEIVER TEAM WEEKLY REPORT FOR WEEK ENDING 3/03/99

Accomplishments Last Week:

1. S/N 108 A1-2 is in ATP. S/N 108 A1-1 is ready for temperature test. S/N 109 A1-1 is in assembly. S/N 109 A1-2 is in assembly. S/N 109 A2 is in pre-test (hold for other priorities).

2. Filtronic Hardware

CH 8 DRO (1), "Intermittent output power" (S/N 79080): Current plan is to retest unit over temperature. They have not been able to repeat the anomaly. CH & 'DRO (2), "Low power at cold" (S/N 79074): Implementation of rework plan to occur Monday 3/1/99. Trip to Filtronic revealed Tripler Module Interface problem.CH 7 DRO (1) Revised quote anticipated to be received on 3/1. A change order to be issued by 3/9 to authorize repair. Two weeks from authorization. A matrix is in process to compare what DROs have capacitors installed.

3. KIT STATUS

RECEIVER	ITEMS MISSING	ECD
S/N 108 A1-2		3/10/99
S/N 108 A1-1		3/26/99
		3/19/99
S/N 109 A2	DDO (1) Coo Abovia	3, 13, 33
S/N 109 A1-2	DRO (1), See Above	
S/N 109 A1-1		

4. OUTSTANDING HARDWARE DELIVERIES

COMPONENT	SUPPLIER	ECD
Spare GDO being rebuilt	Militech	4/23
Spare A1-2 Multiplexer	MEC	3/3
Spare –8 DRO being reworked	Filtronic	TBD
-8 DRO for S/N 109	Filtronic	3/26

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AMSU-A RECEIVER TEAM WEEKLY REPORT FOR WEEK ENDING 3/10/99

Accomplishments Last Week:

1. S/N 108 A1-2 ATP is completed and unit is in Final Assembly. S/N 108 A1-1 is in temperature test. S/N 109 A1-1 is in assembly. S/N 109 A1-2 is in assembly. S/N 109 A2 has started pre-test.

2. Filtronic Hardware

CH 8 DRO (1), "Intermittent output power" (S/N 79080): Unit has been shipped back to Aerojet. Current plan is to retest unit over temperature and try to repeat the anomaly.

CH 8 DRO (2), "Low power at cold" (S/N 79074): Filtronic has narrowed the problem to a mechanical alignment with faceplate flange. Aerojet expects an ATP plan this week.

CH 7 DRO (1) Filtronic will be turned on next week.

3.	KIT STATUS:		
	RECEIVER	ITEMS MISSING	ECD
	S/N 108 A1-2		3/12/99
	S/N 108 A1-1		3/26/99
	S/N 109 A2		3/26/99
	S/N 109 A1-2	DRO(1), see above	
	S/N 109 A1-1		

4. OUTSTANDING HARDWARE DELIVERIES

COMPONENT	SUPPLIER	ECD
Spare -7 DRO being retested	Filtronic	4/9
Spare GDO being rebuilt	Millitech	4/23
Spare A1-2 Multiplexer	MEC	3/19
Spare -8 DRO being reworked	Filtronic	3/26
-8 DRO for S/N 109	Filtronic	Received, not repaired

AMSU-A RECEIVER TEAM WEEKLY REPORT FOR WEEK ENDING 3/17/99

Accomplishments Last Week:

1. S/N 108 A1-2 is completed and unit is in stock. S/N 108 A1-1 is in temperature test. S/N 109 A1-1 is in assembly. S/N 109 A1-2 is in assembly. S/N 109 A2 has started pre-test. Implementation started for PLO (-3) on S/N 109 A1-1.

2. Filtronic Hardware

CH 8 DRO (1), "Intermittent output power" (S/N 79080): Unit has been shipped back to Aerojet. Current plan is to retest unit over temperature and try to repeat the anomaly.

CH 8 DRO (2), "Low power at cold" (S/N 79074): Filtronic has reworked the problem and will provide a failure analysis this week. Aerojet received the ATP plan and is reviewing it.

CH 7 DRO (1) Filtronic will be turned on next week.

2	KIT STATUS:	
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RECEIVER	ITEMS MISSING	ECD
S/N 108 A1-2		3/12/99
S/N 108 A1-1		3/26/99
S/N 109 A2		3/26/99
S/N 109 A1-2	-8 DRO(2), see above	TBD
S/N 109 A1-1	PLO (F12 or F14)	TBD

4. OUTSTANDING HARDWARE DELIVERIES

COMPONENT	SUPPLIER	ECD
Spare -7 DRO being retested	Filtronic	4/9
Spare GDO being rebuilt	Millitech	4/23
Spare A1-2 Multiplexer	MEC	3/19
-8 DRO (2) for S/N 109	Filtronic	3/26
Spare -8 DRO (1)	Filtronic	Received, (under evaluation)

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AMSU-A RECEIVER TEAM WEEKLY REPORT FOR WEEK ENDING 3/24/99

Accomplishments Last Week:

1. S/N 108 A1-1 Replaced PLO and Ch 7 DRO. Repeating pre-test for these channels before returning to temperature test. S/N 109 A1-1 is in assembly. S/N 109 A1-2 is in assembly (short Ch 8). S/N 109 A2 has started pre-test.

2. Filtronic Hardware

CH 8 DRO (1), "Intermittent output power" (S/N 79080): Unit has been shipped back to Aerojet. Current plan is to retest unit over temperature and try to repeat the anomaly.

CH 8 DRO (2), "Low power at cold" (S/N 79074): Filtronic has reworked the problem and will provide a failure analysis this week. ATP to start after completion of CH 7 DRO.

CH 7 DRO (1) Filtronic will finish ATP by 4/2.

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3	KIT	STATUS:

RECEIVER	ITEMS MISSING	ECD
S/N 108 A1-1		4/19/99
S/N 109 A2		4/20/99
S/N 109 A1-2	CH 8 DRO(2), see above	5/19/99
S/N 109 A1-1	CH 7 DRO (1), PLO	6/17/99

4. OUTSTANDING HARDWARE DELIVERIES

COMPONENT	SUPPLIER	ECD
Spare A1-2 Multiplexer -7 DRO (1) being retested Spare GDO being rebuilt -8 DRO (2) being reworked Spare -8 DRO (1) Spare-7 DRO (2)	MEC Filtronic Millitech Filtronic Filtronic Filtronic	4/2 4/9 4/23 4/21 under evaluation at Aerojet TBD
1		

F/AR Status

- 5. F/AR 073, Mixer-Amplifier, P/N 1331562-16, S/N 7A16 (G. Lambert's Team) F/AR approved by NASA
- 6. F/AR 090, A2 Receiver, (Channel 1 Mixer-Amplifier Noise Figure)
 P/N 1356441-1, S/N F02 (G. Lambert's Team)
 F/AR approved by NASA
- 7. <u>F/AR 136, A1-1 Receiver, P/N 1356429-1, S/N F02 (G. Lambert's Team)</u>
 F/AR approved by NASA
- 8. F/AR 178, Channel 8 DRO, P/N 1336610-7, S/N 85074 (G. Lambert's Team)

A follow-up FRB meeting was conducted to discuss Filtronic's analysis of the Channel 8 DRO (S/N 85074) removed from METSAT/AMSU-A1 (S/N 105), and to review their proposed test plan for the unit.

Filtronic had completed rework and re-assembly of the DRO, conducted passive thermal cycling, and tested the unit to verify proper operation.

NASA representative, Bob Lambeck, indicated the plan is acceptable to NASA because it includes both temperature testing and vibration testing in all 3 axes.

The FRB requested submittal of a written report from Filtronic that details the rework of the DRO and the post-assembly testing. Aerojet will review the report before final approval of the test plan is granted.

9. F/AR 192, Receiver, P/N 1356429-1, S/N F05 (G. Lambert's Team)

A follow-up FRB meeting was conducted to review/approve proposal to replace the suspect S/N F05 PLO, removed from Receiver Shelf S/N F05, with the S/N F11 PLO, which is currently on Receiver Shelf S/N F06. Replacement of the PLO was approved.

10. F/AR 193, Receiver, P/N 1356429-1, S/N F05 (G. Lambert's Team)

A FRB meeting was conducted to review the IF Power decrease exhibited during temperature testing of the subject A1-1 Receiver Shelf.

During temperature testing of the receiver, the Channel 7 IF power exhibited a gradual decrease from ~-27dBM to ~-35dBm while the temperature decreased from room ambient to -20°C.

The receiver was subjected to a second cycle from room ambient to -20°C and the problem was verified (i.e. the IF power decreased)

The FRB approved the following plan:

- 1. Remove the chamber cover and visually inspect the test set-up, including the test cable and test connector.
- 2. Check/sniff the frequency of the Channel 7 DRO in a fixed feedhorn position at both ambient (for reference) and cold temperature (-20°C).
- 3. If there is no DRO frequency or the output is low, remove the DRO and perform test/checkout of the DRO at cold temperature.
- 4. If the DRO frequency and output are okay, perform test/checkout of the test cable and attenuator.

NOTE: If the DRO does appear to be the source of the anomaly, the FRB has approved removal of the Channel 7 DRO from Receiver Shelf S/N F06 for checkout at cold temperature, and as a possible replacement for the subject Channel 7 DRO (currently installed on Receiver shelf F05).

3.2.3 PLO Subsystem - Following are the PLO Subsystem Weekly Reports.

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AMSU-A PLO TEAM WEEKLY REPORT FOR WEEK ENDING 3/03/99

ACCOMPLISHMENTS LAST WEEK

EOS

1. EOS PLOs (F01 and F02) are complete.

METSAT 1

2. METSAT 1 PLOs (F03, F04) are complete.

METSAT 2

3. METSAT 2 PLOs are complete (F07, F08).

METSAT 3

- 4. PLO Assemblies (F09, F10)
 - a. METSAT 3 PLOs are complete.
 - b. PLO test report is complete.

METSAT 4

- 5. PLO Assy (F05, F06)
 - a. PLO F05: Completed
 - b. PLO F06: Completed
 - c. PLO Test Report is in progress (ECD 3/12/99).

- 6. PLO Assy (F11, F14)
 - a. F11: Complete 2/18/99
 - b. PLO F14: Performing tuning test over temperature.
- 7. PLOs F12 and F13
 - a. F13: VCGDO has been shipped back to Filtronic.
 - b. PLO F12: Installed VCGDO. Tuning test to follow.
- 8. PLL/TCXO Assy F14 has been bought off.

9. Filtronic: VCGDO 79038 has been shipped to Filtronic.

F/AR Status

10. F/AR 178, METSAT/AMSU-A1, P/N 1331720-2, S/N 105. (D. Pines' Team)
A follow-up FRB meeting was conducted to review/approve Filtronic's troubleshooting plan for the suspect Channel 8 DRO (S/N 85074) removed from METSAT/AMSU-A1 (S/N 105).

Initial troubleshooting at Filtronic isolated the problem to a mismatch between the DRO and the tripler.

The FRB approved a DRO rework plan submitted by Filtronic. In short, they will go through a select and test process for the dielectric resonator inside the tripler until a proper match is achieved.

Then they will close the unit and test the power (Po), frequency (Fo) and current (I_T) at 22°C to verify proper operation.

If the above is successful, Filtronic will submit a DRO retest plan for FRB review and approval.

ITEM	PART NUMBER	QUANTITY REQUIRED	QUANTITY IN PROCESS	QUANTITY COMPLETE	QUANTITY IN REWORK
I. PLO ASSEMBLY	1348360-1	4	3	1	
A. PLL/TCXO ASSEMBLY	1358332-1	4	0	44	
1. PLL ASSEMBLY	1348500-1	4	0	4	
a. PLL CCA	1357976-1	4	0	4	
b. LOOP AMP CCA	1357970-1	4	0	4	
2. TCXO (**)	1348325-1	4	0	4	
B. DRO ASSEMBLY	1348400-1	4	0	4	
1. DRO CCA	1357973-1	4	0	4	
2. LOOP AMP CCA	1357970-1	4	0	4	
3. 573 MHZ CCA	1357982-1	4	0	4	
C. VOLTAGE REG ASSY	1357979-1	4	0	4	
D. 6.87 FILTER ASSEMBLY	1357729-1	4	0	4	
E. VCGDO (**)	1348351-1	4	0	3	1
F. PLO CABLES (**)	1348430-1,-2,-3 1348435-1,-2,-3 1357793-1,-3,-4	36	0	36	

PLO Subcontract Flight Delivery

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SPARE	12/16/98	4/4/99	2/15/99		2/9/99		3/19/99		F12		3/31/99		F13	TBD								₹ Z
109	10/28/98	8/58/88	12/15/98		12/5/98		12/21/98		2/19/99		3/12/99		F11	Complete		F14	3/12/00		3/31/99			12/16/98
108	7/29/98	2/6/98	10/13/98		F09		11/19/98		Complete	•			F05		11/30/98		12/21/98		1/20/99	Complete		10/22/98
107	3/19/98	86/9/9	8/1/88		8/27/88		F06	86/06/6			10/6/98	Complete	F10		11/12/98		Complete	•				9/15/98
106	1/29/98	3/9/8	6/29/98	2/17/98		8/27/98		8/14/88		9/21/98					F07. F08	Complete	_					7/29/98
105	41/3/97	1/6/98	4/27/98		Complete				•													5/12/98
EOS	8/31/97	9/12/97	26/08/6	10/10/97	***40/31/97	11/26/97	12/22/97	Complete						-								
	N/A																					
INSTRUMENT	Completed	-																			Original	Need Date
	PLOs		_	_	_	-																

Reflects any change since last weekly.

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AMSU-A PLO TEAM WEEKLY REPORT FOR WEEK ENDING 3/10/99

ACCOMPLISHMENTS LAST WEEK

EOS

1. EOS PLOs (F01 and F02) are complete.

METSAT 1

2. METSAT 1 PLOs (F03, F04) are complete.

METSAT 2

3. METSAT 2 PLOs are complete (F07, F08).

METSAT 3

- 4. PLO Assemblies (F09, F10)
 - a. METSAT 3 PLOs are complete.
 - b. PLO test report is complete.

METSAT 4

- 5. PLO Assy (F05, F06)
 - a. PLO F05: Completed
 - b. PLO F06: Completed
 - c. PLO Test Report is in review.

- 6. PLO Assy (F11, F14)
 - a. F11: Complete 2/18/99
 - b. PLO F14: Unit is in Inspection.
- 7. PLOs F12 and F13
 - a. F13: VCGDO has been shipped back to Filtronic.
 - b. PLO F12: Installed VCGDO. Performing Tuning Test.

8. Filtronic: VCGDO 79038 (TBD).

ITEM	PART NUMBER	QUANTITY REQUIRED	QUANTITY IN PROCESS	QUANTITY COMPLETE	QUANTITY IN REWORK
I. PLO ASSEMBLY	1348360-1	4	3	1	
A. PLL/TCXO ASSEMBLY	1358332-1	4	0	4	
1. PLL ASSEMBLY	1348500-1	4	0	4	
a. PLL CCA	1357976-1	4	0	4	
b. LOOP AMP CCA	1357970-1	4	0	4	
2. TCXO (**)	1348325-1	4	0	4	
B. DRO ASSEMBLY	1348400-1	4	0	4	
1. DRO CCA	1357973-1	4	0	4	
2. LOOP AMP CCA	1357970-1	4	0	4	
3. 573 MHZ CCA	1357982-1	4	0	4	
C. VOLTAGE REG ASSY	1357979-1	4	0	4	
D. 6.87 FILTER ASSEMBLY	1357729-1	4	0	4	
E. VCGDO (**)	1348351-1	4	0	3	1
F. PLO CABLES (**)	1348430-1,-2,-3 1348435-1,-2,-3 1357793-1,-3,-4	36	0	36	

^{**} Outside Build

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PLO Subcontract Flight Delivery

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SPARE	42/16/98	4/4/99	2/15/99		5/8/88		3/19/99		F12		3/31/99		F13	TBD								N/A
109	10/28/98	84/58/88	12/15/98		42/5/98		12/21/98		2/19/99		3/12/99		F11	Complete		F14	3/12/60	2/24/00	66/10/0			12/16/98
108	7/29/98	86/9/2	10/13/98		F09		11/19/98		Complete	•	•	•	F05		11/30/98		12/21/08	1/20/00	0,700mg	Solipida		10/22/98
107	3/19/98	86/9/9	8/1/8		8/27/98		F06	86/05/6			10/6/98	Complete	F10		11/12/98		Complete					9/15/98
106	1/29/98	3/9/8	6/29/98	2/12/98		8/27/98		9/14/98		9/21/98			•		F07. F08	Complete						7/29/98
105	41/3/97	1/6/98	4/27/98		Complete	•																5/12/98
EOS	8/31/97	9/12/97	26/08/6	10/10/97	***10/31/97	44/26/97	12/22/97	Complete														
	N/A												•									
INSTRUMENT	Completed	•												****							Original	Need Date
	PLOs																	• • •				

Reflects any change since last weekly.

AMSU-A PLO TEAM WEEKLY REPORT FOR WEEK ENDING 3/17/99

ACCOMPLISHMENTS LAST WEEK

EOS

1. EOS PLOs (F01 and F02) are complete.

METSAT 1

2. METSAT 1 PLOs (F03, F04) are complete.

METSAT 2

3. METSAT 2 PLOs are complete (F07, F08).

METSAT 3

- 4. PLO Assemblies (F09, F10)
 - a. METSAT 3 PLOs are complete.
 - b. PLO test report is complete.

METSAT 4

- 5. PLO Assy (F11, F06)
 - a. PLO F11: Completed
 - b. PLO F06: Completed
 - c. PLO Test Report is in review.

- 6. PLO Assy (F12, F14)
 - a. PLO F12: CPT & 3dB Test.
 - b. PLO F14: CPT & 3dB Test.
- 7. PLOs F05 and F13
 - a. F13: VCGDO has been shipped back to Filtronic.
 - b. F05: Under evaluation.

8. Filtronic: VCGDO 79038 (TBD).

F/AR Status

9. F/AR 192, Receiver, P/N 1356429-1, S/N F05 (G. Lambert's Team)

F/AR initiated to cover PLO, S/N F05 which failed to lock at +5°C during test of subject Receiver.

During Bandpass characterization and noise figure testing of the A1-1 Receiver Shelf at +5.5°C, the PLO lost lock (the PLO lock detect voltage changed from +14.5V to +2.3V). This problem occurred during the first temperature cycle. A second cycle was run and the unit did not fail (PLO maintained lock). At the start of a third cycle at +22°C, the PLO again would not lock.

Preliminary troubleshooting included the following:

1. Remove door and perform visual inspection of test setup.

2. Check out grounding, perform measurement.

3. Turn on with test box (20 times approx.)

4. Checkout with DC-DC Eng model and relay

Results: No test set up problems found.

Result: Grounding okay.

Result: PLO exhibited intermittent

failures (loss of lock)

Result: PLO never locked.

The FRB approved the following continuation plan:

- 1) Remove PLO from receiver shelf.
- 2) Evaluate PLO Separately on bench with DC-DC Eng model.
- 3) Re-tune as necessary (R1 & R2).
- 4) Test over operating temperature range.
- 5) Investigate DC-DC turn on vs. PLO lock range.

ITEM	PART NUMBER	QUANTITY REQUIRED	QUANTITY IN PROCESS	QUANTITY COMPLETE	QUANTITY IN REWORK
I. PLO ASSEMBLY	1348360-1	4	3	1	
A. PLL/TCXO ASSEMBLY	1358332-1	4	0	4	
1. PLL ASSEMBLY	1348500-1	4	0	4	
a. PLL CCA	1357976-1	4	0	4	
b. LOOP AMP CCA	1357970-1	4	0	4	
2. TCXO (**)	1348325-1	4	0	4	
B. DRO ASSEMBLY	1348400-1	4	0	4	
1. DRO CCA	1357973-1	4	0	4	
2. LOOP AMP CCA	1357970-1	4	0	4	
3. 573 MHZ CCA	1357982-1	4	0	4	
C. VOLTAGE REG ASSY	1357979-1	4	0	4	
D. 6.87 FILTER ASSEMBLY	1357729-1	4	0	4	
E. VCGDO (**)	1348351-1	4	0	3	1
F. PLO CABLES (**)	1348430-1,-2,-3 1348435-1,-2,-3 1357793-1,-3,-4	36	0	36	

^{**} Outside Build

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PLO Subcontract Flight Delivery

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SPARE										<u>.</u>	TBD				-	F05	TBD		N/A
109	(%)	7LO (-3)	Colliplete										F14	Or F12	3/31/00				12/16/98
108	7/29/98	86/9//	10/13/98		-	F06	86/02/6		10/6/98	Complete			F11	2000	12/21/98				10/22/98
107	3/19/98	2/6/98	8/1/8		8/27/88	F09		11/19/98	Complete	F10	11/12/98		Complete						9/15/98
106	1/29/98	3/9/8	86/57/9	2/12/88		8/27/98		9/14/98	9/21/98			F07 F08	Complete						7/29/98
105	11/3/97	1/6/98	4/27/98		Complete	•													5/12/98
EOS	8/31/97	9/12/97	26/06/6	10/10/97	****10/31/97	11/26/97	12/22/97	Complete											
	N/A																		
INSTRUMENT	Completed	•																Original	Need Date
	PLOs																		

Reflects any change since last weekly.

AMSU-A PLO TEAM WEEKLY REPORT FOR WEEK ENDING 3/24/99

ACCOMPLISHMENTS LAST WEEK

EOS

1. EOS PLOs (F01 and F02) are complete.

METSAT 1

2. METSAT 1 PLOs (F03, F04) are complete.

METSAT 2

3. METSAT 2 PLOs are complete (F07, F08).

METSAT 3

- 4. PLO Assemblies (F09, F10)
 - a. METSAT 3 PLOs are complete.
 - b. PLO test report is complete.

METSAT 4

- 5. PLO Assy (F11, F06)
 - a. PLO F11: Completed
 - b. PLO F06: Completed
 - c. PLO Test Report is in review.

- 6. PLO Assy (F12, F14)
 - a. PLO F12: In Final Assembly.
 - b. PLO F14: In Final Assembly.
- 7. PLOs F05 and F13
 - a. F13: VCGDO has been shipped back to Filtronic.
 - b. F05: Under evaluation.

8. Filtronic: VCGDO 79038 (TBD).

ITEM	PART NUMBER	QUANTITY	QUANTITY IN	QUANTITY	QUANTITY
		REQUIRED	PROCESS	COMPLETE	IN REWORK
I. PLO ASSEMBLY	1348360-1	4	3	1	
A. PLL/TCXO ASSEMBLY	1358332-1	4	0	4	
1. PLL ASSEMBLY	1348500-1	4	0	4	
a. PLL CCA	1357976-1	4	0	4	
b. LOOP AMP CCA	1357970-1	4	0	4	
2. TCXO (**)	1348325-1	4	0	4	
B. DRO ASSEMBLY	1348400-1	4	0	4	
1. DRO CCA	1357973-1	4	0	4	
2. LOOP AMP CCA	1357970-1	4	0	4	
3. 573 MHZ CCA	1357982-1	4	0	4	
C. VOLTAGE REG ASSY	1357979-1	4	0	4	
D. 6.87 FILTER ASSEMBLY	1357729-1	4	0	4	
E. VCGDO (**)	1348351-1	4	0 .	3	1
F. PLO CABLES (**)	1348430-1,-2,-3	36	0	36	
	1348435-1,-2,-3				
	1357793-1,-3,-4	<u> </u>		<u></u>	

^{**} Outside Build

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PLO Subcontract Flight Delivery

SPARE					Д 67	TBD			F05 TBD	N/A
109	PLO (-3) Complete						F14 0r F12	- - 5		12/16/98
108	7/29/98 7/6/98	F06	98/06/8	10/6/98			F11 Complete	12/21/98		10/22/98
107	3/19/98 5/6/98 8/1/98	8/27/98 F09	11/19/98	Complete	F10	11/12/98	Complete		-	9/15/98
106	86/8/68 8/9/8	9/27/08 7/17/08 8/27/08	8/14/98	9/21/98		EO7 FO8	Complete			7/29/98
105	11/3/97 1/6/98 4/27/98	Complete								5/12/98
EOS	8/31/97 9/12/97 9/30/92	10/10/97 ***10/31/97 11/26/97	Complete							
	N/A					-				
INSTRUMENT	Completed									Original Need Date
	PLOs						-			

Reflects any change since last weekly.

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3.2.4 Electronics Subsystem - Following are the Electronics Subsystem Weekly Reports.

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AMSU-A ELECTRONICS TEAM WEEKLY REPORT FOR WEEK ENDING 3/3/99

- 1. CCAs (301 total) Complete
- 2. EOS Cable Assemblies (13 total) Complete
- 3. METSAT Cable Assemblies (65 total) Complete
- 4. EOS Signal Processor Assemblies (2 total) Complete
- 5. METSAT Signal Processor Assemblies (10 total) Complete
 - 109 A1 Signal Processor awaiting test
- 6. Detector PreAmp Assemblies (12 total) Complete
- 7. Power Assemblies (12 total) Complete

8.	DC-DC Status:	202 A1&A2	Installed
		105 A1&A2	Installed
		106 ለ1	Installed

 106 A1&A2
 Installed

 107 A1&A2
 Installed

 108 A1&A2
 In Stock

 109 A1
 In Stock

109 A2 In rework at FEI

At FEI:

FM 13(spare) In ATP, ship in Apr

FM 14(spare) In Final assembly, ship in May

Spare Kit Ship in June

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AMSU-A ELECTRONICS TEAM WEEKLY REPORT FOR WEEK ENDING 3/10/99

- 1. CCAs (301 total) Complete
- 2. EOS Cable Assemblies (13 total) Complete
- 3. METSAT Cable Assemblies (65 total) Complete
 - 107 A1 Pwr and Video CCAs to SAR & Coating
- 4. EOS Signal Processor Assemblies (2 total) Complete
- 5. METSAT Signal Processor Assemblies (10 total) Complete
 - 109 A1 Signal Processor in test
- 6. Detector PreAmp Assemblies (12 total) Complete
- 7. Power Assemblies (12 total) Complete

8.	DC-DC Status:	202 A1&A2	Installed
		105 A1&A2	Installed
		106 A1&A2	Installed
		107 A1&A2	Installed
		108 A1&A2	In Stock
		109 A1	In Stock
		109 A2	In retest at FEI

At FEI:

FM 13(spare) In ATP, ship in Apr

FM 14(spare) In Final assembly, ship in May

Spare Kit Ship in June

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AMSU-A ELECTRONICS TEAM WEEKLY REPORT FOR WEEK ENDING 3/17/99

- 1. CCAs (301 total) Complete
- 2. EOS Cable Assemblies (13 total) Complete
- 3. METSAT Cable Assemblies (65 total) Complete
 - Completed 107 A1 Pwr and Video CCAs Coating
- 4. EOS Signal Processor Assemblies (2 total) Complete
- 5. METSAT Signal Processor Assemblies (10 total) Complete
 - 109 A1 Signal Processor in test
- 6. Detector PreAmp Assemblies (12 total) Complete
- 7. Power Assemblies (12 total) Complete

8.	DC-DC Status:	202 A1&A2	Installed
		105 A1&A2	Installed
		106 A1&A2	Installed
		107 A1&A2	Installed
		108 A1&A2	In Stock
		109 A1	In Stock
		109 A2	In Buy Off after repair at FEI

At FEI:

FM 13(spare) In ATP, ship in Apr

FM 14(spare) In Final assembly, ship in May

Spare Kit Ship in June

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AMSU-A ELECTRONICS TEAM WEEKLY REPORT FOR WEEK ENDING 3/24/99

- 1. CCAs (301 total) Complete
- 2. EOS Cable Assemblies (13 total) Complete
- 3. METSAT Cable Assemblies (65 total) Complete
- 4. EOS Signal Processor Assemblies (2 total) Complete
- 5. METSAT Signal Processor Assemblies (10 total) Complete
 - 109 A1 Signal Processor in test (as resources available)
- 6. Detector PreAmp Assemblies (12 total) Complete
- 7. Power Assemblies (12 total) Complete

8.	DC-DC Status:	202 A1&A2	Installed
		105 A1&A2	Installed
	,	106 A1&A2	Installed
		107 A1&A2	Installed
		108 A1&A2	In Stock
		109 A1	In Stock
		109 A2	Ship 31 Mar

At FEI:

FM 13(spare)	In ATP, ship in Apr
FM 14(spare)	In Final assembly, ship in May
Spare Kit	Ship in June

Report No. 10300-67 April 1999

3.2.5 System Engineering Integration and Test (SEIT) Subsystem Following are the SEIT Subsystem Weekly Reports.

	 			
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AMSU-A SYSTEM ENGINEERING INTEGRATION AND TEST (SEIT) TEAM WEEKLY REPORT FOR WEEK ENDING 3/3/99

1. AMSU-A1 (S/N 105)

- Calibration thermal vacuum Subcycle 6 and 3 completed (-2C instrument), Subcycle 1 (38C instrument) half complete.
- Special METOP grounding interface testing continuing.

2. AMSU-A2 (S/N 105)

- Calibration Completed
- Final CPT in process, Momentum Compensation Test is next

3. AMSU-A1 (S/N 106)

- Eng Thermal Cycle Test in process. Following temp cycle, unit will enter baseline CPT testing.
- PER 3 Mar 1999, completed.

4. AMSU-A2 (S/N106)

• Low level Z-axis vib test for resolution of 20Hz/motor nut torque anomaly completed. FRB planned for 3/5.

5. AMSU-A1 (S/N 107)

◆ Continuing Systems Integration Testing. PRT calibration started.

6. AMSU-A2 (S/N 107)

- Receiver shelf reinstalled following PRT rework.
- Systems Integration Test completed
- Preparing to start Eng CPT

7. GSE

Five shipping containers ready for source inspection at zero.

8. Status of Integration Subassemblies and Subsystems For (S/N 108)

	A1	A2
ANTENNA SUBSYSTEM	In Work	In Work
UPPER CARD CAGE (A1 ONLY)	In stock	N/A
POWER RELAY ASSY	In stock	In stock
CABLE HARNESS ASSEMBLIES	In stock	In stock
SIGNAL PROCESSOR	In stock	In stock
DC/DC CONVERTER	In stock	In stock
DET PREAMP	In stock	In stock
RECEIVER	In Test	In Stock

9. Status of Integration Subassemblies and Subsystems For (S/N 109)

	A1	A2
ANTENNA SUBSYSTEM	In Machine Shop	In Assembly
UPPER CARD CAGE (A1 ONLY)	In stock	N/A
POWER RELAY ASSY	In stock	In stock
CABLE HARNESS ASSEMBLIES	In stock	In stock
SIGNAL PROCESSOR	In Rework	In stock
DC/DC CONVERTER	In Stock	Rtn To Vendor
DET PREAMP	In stock	In stock
RECEIVER	In Assembly	In Test

SEIT Weekly Page 3

F/AR Status

10. F/AR 184, METSAT/AMSU-A1, P/N 1331720-2, S/N 106 (A. Nieto's Team)

A follow-up FRB meeting was conducted to discuss the results of troubleshooting conducted at FEI on DC/DC Converter, S/N FM7, and review/approve plans for rework and retest, as well as those for part level failure analysis.

Initial troubleshooting at FEI isolated the problem to an out-of-spec. inrush resistor (R600) which measured \sim 35 Ω , S/B 5.11 Ω .

The FRB approved the following plan for analysis of the suspect R600 resistor.

- 1) Obtain 10 resistor samples from the same DLC as the suspect part. Measure resistance on each part to verify it is within tolerance.
- 2) Submit the suspect resistor and one of the good units (i.e. resistance meets spec.) from Step 1. to Hi-Rel Labs. The suspect resistor shall be failure analyzed to isolate the cause of its out-of-limit resistance. The good unit will be analyzed as required for comparison. The AS8070 DPA Planning Sheet used for wire wound resistors provides a list of the types of examinations/procedures that will be part of the failure analysis.

The FRB approved the following plan for rework and retest of the DC/DC Converter.

- 1) The DC/DC Converter will be reworked (i.e. replacement of R600) in accordance with the FEI Customer Return Repair Traveler (CRRT).
- 2) After the R600 resistor is replaced, proper function will be verified by performing a Post Rework Checkout as shown on FEI's Plan.
- 3) The DC/DC Converter will then be subjected to ATP Retest. It will consist of two cycles. In the first cycle the unit will be on and simply cycled from +25°C to -10°C to +50°C and back to +25°C. In the second cycle it will be cycled through the same temperatures, but will also be subjected to the electrical tests listed on FEI's Plan.

11. F/AR 189, METSAT/AMSU-A1, P/N 1331720-2, S/N 106 (A. Nieto's Team)

An F/AR was initiated for the subject instrument. During Full Print test, Channel 12 counts were in the 9000 range, S/B 16000-17000. Approval was received from NASA to remove the panel and inspect for any loose connections. A metal sliver was found to be shorting at semi-rigid connector (short to center pin) connected to J552. The sliver was removed and the instrument passed Full Print test. It's believed the metal sliver came from one of the threads of the screw-on connector during installation.

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AMSU-A SYSTEM ENGINEERING INTEGRATION AND TEST (SEIT) TEAM WEEKLY REPORT FOR WEEK ENDING 3/10/99

1. AMSU-A1 (S/N 105)

- Calibration Completed. Rechecking several data points prior to ending test. Weight & CG will be next, followed by Momentum Compensation and the Final CPT.
- Special METOP grounding interface testing completed. Data being evaluated.

2. AMSU-A2 (S/N 105)

- Final CPT Completed
- Momentum Compensation Test Completed.
- Weight & CG Completed.
- Completed Measurement of Isolation Pads and Cleaning of Shipping Container
- Plan to be "In The Box" by 2/15.
- PSR planned 1 Apr.

3. AMSU-A1 (S/N 106)

- Eng Thermal Cycle Test successfully completed.
- In Prep to start Baseline CPT

4. AMSU-A2 (S/N106)

• FRB held 3/9. Troubleshooting plan approved to substitute W3 Cable assembly first, and then FO8 motor if necessary to properly SAT the unit Scan Drive Subsystem.

5. AMSU-A1 (S/N 107)

- Completed Systems Integration
- In Prep for Engineering CPT

6. AMSU-A2 (S/N 107)

Started Engineering CPT

7. AMSU-A2 (S/N 108)

Installed Receiver, Cable Assembly installation next.

SEIT Weekly Page 2

8. GSE

- Five shipping containers shipped to Aerojet 3/9.
- METOP Cal Targets "In The Box" awaiting Buy off
- The containers for shipment of the STE and Blackbody Monitor cabinets are on order due end of month.
- METOP Spacecraft connectors being sent out for DPA.
- Fourth STE now functional, awaiting C/O with engineering model instrument.

9. Status of Integration Subassemblies and Subsystems For (S/N 108)

	A1	A2
ANTENNA SUBSYSTEM	In Work	Complete To Systems
UPPER CARD CAGE (A1 ONLY)	In stock	
POWER RELAY ASSY	In stock	
CABLE HARNESS ASSEMBLIES	In stock	
SIGNAL PROCESSOR	In stock	
DC/DC CONVERTER	In stock	
DET PREAMP	In stock	
RECEIVER	In Test	

10. Status of Integration Subassemblies and Subsystems For (S/N 109)

	A1	A2
ANTENNA SUBSYSTEM	In Machine Shop	In Assembly
UPPER CARD CAGE (A1 ONLY)	In stock	N/A
POWER RELAY ASSY	In stock	In stock
CABLE HARNESS ASSEMBLIES	In stock	In stock
SIGNAL PROCESSOR	In Test	In stock
DC/DC CONVERTER	In Stock	Rtn To Vendor
DET PREAMP	In stock	In stock
RECEIVER	In Assembly	In Test

SEIT Weekly Page 4

F/AR Status

11. F/AR 190, METSAT/AMSU-A1, P/N 1331720-2, S/N 105. (L. Paliwoda's Team)
F/AR initiated for subject instrument, which exhibited out-of-spec calculated linearity on
Channels 6, 7 and 9 thru 14.

A waiver request is being prepared.

Similar situation (Ref. F/AR 157) existed on EOS/AMSU-A1 (202) and waiver CCR No. 8125 was approved which revised linearity requirements for the EOS A1 instrument.

12. F/AR 191, METSAT/AMSU-A1, P/N 1331720-2, S/N 105 (L. Paliwoda's Team)
F/AR initiated for subject instrument.

During engineering evaluation to determine effects of METOP ground on AMSU-A calibration (Task #12), the count difference between samples 1 and 2 in both the warm calibration position and cold calibration position was 10-15 counts at ~38°C, expected difference is 6-7 counts.

The out-of-family count difference is not an out-of-specification condition. It could not be repeated with METOP or METSAT grounding.

AMSU-A SYSTEM ENGINEERING INTEGRATION AND TEST (SEIT) TEAM WEEKLY REPORT FOR WEEK ENDING 3/17/99

1. AMSU-A1 (S/N 105)

- Completed Momentum Compensation Test
- Completed Weight & CG Measurement
- Completed Final CPT
- Final unit prep & cleaning underway for installation in shipping container
- Ready for PSR 1 Apr

2. AMSU-A2 (S/N 105)

- Instrument installed in shipping container
- Ready for PSR 1 Apr.

3. AMSU-A1 (S/N 106)

In Baseline CPT

4. AMSU-A2 (S/N106)

- Troubleshooting continued with substitution of W3 Cable assembly. No repeatable data confirmed any problem with the cable assembly.
- Temporarily installed FO8 motor to see if we can be properly SAT the unit Scan Drive Subsystem. Testing underway.

5. AMSU-A1 (S/N 107)

- Completed rework of Ch 3 DRO "capacitor"
- Ready to start Engineering CPT

6. AMSU-A2 (S/N 107)

In Engineering CPT

7. AMSU-A2 (S/N 108)

- Completed Receiver installation
- Cable Assembly installation underway.

8. Engineering Models

- Started reassembly of A1Cable Assembly installation underway.
- A2 awaiting troubleshooting of power supply.

SEIT Weekly Page 2

9. GSE

- Received Five shipping containers.
- METOP Cal Targets "Bought Off"
- Received 8ea METOP Spacecraft connectors, conditionally accepted pending DPA.
- Drafted SOW for refurbishment of 6ea KLM shipping containers.

10. Status of Integration Subassemblies and Subsystems For (S/N 108)

Γ	A1	A2
ANTENNA SUBSYSTEM	In Work	Complete To Systems
UPPER CARD CAGE (A1 ONLY)	In stock	
POWER RELAY ASSY	In stock	
CABLE HARNESS ASSEMBLIES	In stock	
SIGNAL PROCESSOR	In stock	
DC/DC CONVERTER	In stock	
DET PREAMP	In stock	
RECEIVER	In Test	

11. Status of Integration Subassemblies and Subsystems For (S/N 109)

	A1	A2
ANTENNA SUBSYSTEM	In Machine Shop	In Assembly
UPPER CARD CAGE (A1 ONLY)	In stock	N/A
POWER RELAY ASSY	In stock	In stock
CABLE HARNESS ASSEMBLIES	In stock	In stock
SIGNAL PROCESSOR	In Test	In stock
DC/DC CONVERTER	In Stock	Rtn To Vendor
DET PREAMP	In stock	In stock
RECEIVER	In Assembly	In Test

F/AR Status

12. F/AR 181, METSAT/AMSU-A1, P/N 1331720-2, S/N 105 (A. Nieto's Team)

Final F/AR completed, signed and submitted to NASA

An apparent temperature difference between the A1-1 and A1-2 Feedhorn PRTs observed during temperature transition of the AMSU-A1 Instrument during Temperature Cycling could not be isolated to any fault/defect associated with the PRTs.

NOTE: Prior to the Thermal Cycling, a Full Scan Mode test was performed and a review of the test results indicated no test anomaly.

Failure diagnosis was initiated with the removal of the top Panel of the Instrument to perform an inspection and electrical continuity measurements. The internal visual examination revealed no anomalous conditions in the bonding of the PRT or in the device itself, related circuitry or adjoining areas.

The mechanical connection (connector) to the PRT was verified as well. Electrical measurements of the temperature sensors with power applied and with an ohmmeter indicated the device did not have an open condition and appeared to be functional.

The connector was cleaned with isopropyl alcohol. The test panel was re-installed and Full Scan Mode was performed.

Thermal Specialist Robert Krylo commented that it is not uncommon for the PRT readings between the A1-1 and A1-2 Feedhorns to vary widely during temperature transition within the vacuum chamber and room ambient thermal cycling due to the changing conditions and the temperature gradient.

The Thermal Balance Test of the AMSU-A1 S/N 105 Instrument in Thermal Vacuum determined that the A1-1 PRT and the A1-2 PRT corresponded to within two degrees of each other indicating the functionality of the temperature sensors (PRTs)

13. F/AR 190, METSAT/AMSU-A1, P/N 1331720-2, S/N 105. (L. Paliwoda's Team)

Final F/AR completed, signed, and submitted to NASA.

During offline data analysis, the data showed out-of-specification calculated linearity on Channels 6, 7, and 9 thru 14.

After reviewing all collected data, it was determined that the linearity values are above specification on Channels 6, 7, and 9 thru 14. It was also found that the nonlinearity is very stable and repeatable.

This same above-specification linearity was experienced on EOS/AMSU-A1, S/N 202 (Reference F/AR 157). At that time a fault tree approach was used to analyze the nonlinearity anomaly by

SEIT Weekly Page 5

identifying all possible causes, qualitatively evaluating the probability of each cause, and assessing the feasibility of corrective action.

For EOS/AMSU-A1, S/N 202, it was found that none of the causes identified as "Probable" are easily correctable. However, it was verified that the nonlinearities on all channels are correctable by using simple algorithms provided for KLM. This subject was addressed at the AMSU-A Quarterly Review held on 27 October 1998.

At that time graphs were presented for each channel showing polynomial corrections of the linear fit. Likewise, it has been verified for METSAT/AMSU-A1, S/N 105, that the nonlinearities on all channels are correctable by using the simple algorithms provided for KLM. Consequently, as was done for the EOS A1 instrument, a waiver (POES CCR No. 8127) has been submitted requesting acceptance of the out-of-specification linearity measurements and approval of correction by using KLM algorithms (NOTE: The waiver approved for EOS A1 was POES Configuration Change Request No. 8125).

14. F/AR 191, METSAT/AMSU-A1, P/N 1331720-2, S/N 105. (L. Paliwoda's Team)

Final F/AR completed, signed and submitted to NASA.

During engineering evaluation to determine effects of METOP ground on AMSU-A calibration (Task # 12), the count difference between samples 1 and 2 in both the warm calibration position and cold calibration position was 10-15 counts at ~38°C, expected difference is 6-7 counts

With the AMSU-A1 instrument still at approximately +38°C, the METOP grounding was disconnected and the METSAT grounding was connected, however the breakout box and the METOP grounding test cable adapter were still part of the test setup. The out-of-family count difference still existed. The breakout box and the METOP grounding test cable adapter were removed. Using the METSAT grounding, the AMSU-A1 instrument was cycled twice more to +38°C and then back to ambient. The out-of-family count difference could not be repeated. Then the breakout box and the METOP grounding test cable adapter were reinserted and again the out-of-family count difference could not be repeated. An analysis of data and the environmental conditions during test revealed no abnormalities, which would explain the observed count difference. It's possible that because the METOP grounding test cable adapter is not shielded, it could have picked up noise, which affected the count difference.

No corrective action was required. The out-of-family count difference is not an out-of-specification condition.

AMSU-A SYSTEM ENGINEERING INTEGRATION AND TEST (SEIT) TEAM WEEKLY REPORT FOR WEEK ENDING 3/24/99

1. AMSU-A1 (S/N 105)

- Final unit cleaning completed and unit installed in shipping container
- PSR data delivered

2. AMSU-A2 (S/N 105)

- PSR data delivered
- Awaiting PSR

3. AMSU-A1 (S/N 106)

- Completed Baseline CPT
- Started EMI testing

4. AMSU-A2 (S/N106)

- Completed troubleshooting of vibration anomaly
- FRB held and unit in reassembly for retest

5. AMSU-A1 (S/N 107)

• Started Engineering CPT

6. AMSU-A2 (S/N 107)

- Completed Engineering CPT
- PER data in prep

7. AMSU-A2 (S/N 108)

- Completed Cable Assembly installation
- Ready to start Systems Integration testing

8. Engineering Models

- Reassembly of A1-1 Receiver underway.
- A2 awaiting troubleshooting of power supply.

9. GSE

• DPA of METOP Spacecraft connectors to be completed by 3/29

10. Status of Integration Subassemblies and Subsystems For (S/N 108)

-	A1	A2
ANTENNA SUBSYSTEM	In Work	Complete To Systems
UPPER CARD CAGE (A1 ONLY)	In stock	
POWER RELAY ASSY	In stock	
CABLE HARNESS ASSEMBLIES	In stock	
SIGNAL PROCESSOR	In stock	
DC/DC CONVERTER	In stock	
DET PREAMP	In stock	
RECEIVER	In Test	

11. Status of Integration Subassemblies and Subsystems For (S/N 109)

; [A1	A2
ANTENNA SUBSYSTEM	In Machine Shop	In Assembly
UPPER CARD CAGE (A1 ONLY)	In stock	N/A
POWER RELAY ASSY	In stock	In stock
CABLE HARNESS ASSEMBLIES	In stock	In stock
SIGNAL PROCESSOR	In Test	In stock
DC/DC CONVERTER	In Stock	Rtn To Vendor
DET PREAMP	In stock	In stock
RECEIVER	In Assembly	In Test

SEIT Weekly Page 3

F/AR Status

12. F/AR 105, METSAT/AMSU-A2 (Missing Backplane Wires), P/N 1331200-2, S/N 105 (A. Nieto's Team)
F/AR approved by NASA

13. F/AR 138, METSAT/AMSU-A2 (REO2 special frequencies), P/N 1331200-2-EMI, S/N 105 (L. Paliwoda's Team)

F/AR approved by NASA

14. F/AR 141, METSAT/AMSU-A2 (Channel 4 Noise problem), P/N 1331200-2, S/N 105
(A. Nieto's Team)
F/AR approved by NASA

15. F/AR 154, METSAT/AMSU-A1 (Channel 7 Noise problem), P/N 1331720-2, S/N 105
(A. Nieto's Team)
F/AR approved by NASA

16. F/AR 191, METSAT/AMSU-A1(METOP Grounding – Task #12), P/N 1331720-2, S/N 105 (L. Paliwoda's Team)
F/AR approved by NASA

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5.0 Weight and Power Budgets (CDRL 503)

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AMSU-A WEIGHT

	- AMSU -	AMSU - A1 (lbs.)	- AMSU	AMSU - A2 (lbs.)
SUBASSEMBLY	METSAT	EOS	METSAT	EOS
ANTENNA SUBSYSTEM	58.7	51.3	7.77	63.5
RECEIVER SUBSYSTEM	31.7	31.7	7.1	7.1
SIGNAL PROCESSOR	26.7	24.7	20.7	21.4
MISCELLANEOUS	4.4	4.4	3.4	3.4
ESTIMATED TOTAL	121.5	112.1	108.9	95.4
SPECIFICATION (MAX.)	119.5	131	110	110
MEASURED		108*	109.5 **	93**

Without Velcro and blankets** With test blankets

AMSU-A POWER

EOS Nois Bus Bus Bus Bus 31.0	Main Load Pulse Load Quiet Noisy Main Load Pulse Load Pulse Load Pulse Load Pulse Bus Nom Max No Max No 63.3 82.0 3.5 6.0 67.9 88.0 3.6 6.0 18.9 25.0 6.4 82.0 6.0 6.0 94.0 37.0 37.0 37.0				AM	SU-A1	AMSU-A1 (WATTS)	rs)					A	AMSU-A2 (WATTS)	(WAT	(S		
Main Load Pulse Load Quiet Noisy Main Load Pulse Load Quiet Noisy Main Load Pulse Load Quiet No Nom Max Nom Max Nom Max Nom Max Nom Bus	Main Load Pulse Load Quiet Noisy Main Load Pulse Bus Bus B			MET	SAT			田田	SC			B	LSAT			1	٥	
Nom Max Nom Nom Max Nom Nom <th>Nom Max Nom Nom Max Nom Nom<th></th><th>Main I Bu</th><th>coad</th><th>Pulse Bu</th><th>Load</th><th><u>9</u> g</th><th>let IS</th><th>Noi</th><th>lsy Is</th><th>Main Bu</th><th></th><th>Pulse</th><th>Load</th><th>P E</th><th></th><th></th><th>s s</th></th>	Nom Max Nom Nom Max Nom Nom <th></th> <th>Main I Bu</th> <th>coad</th> <th>Pulse Bu</th> <th>Load</th> <th><u>9</u> g</th> <th>let IS</th> <th>Noi</th> <th>lsy Is</th> <th>Main Bu</th> <th></th> <th>Pulse</th> <th>Load</th> <th>P E</th> <th></th> <th></th> <th>s s</th>		Main I Bu	coad	Pulse Bu	Load	<u>9</u> g	let IS	Noi	lsy Is	Main Bu		Pulse	Load	P E			s s
63.3 82.0 3.5 6.0 67.9 88.0 3.6 6.0 18.9 25.0 6.4 12.0 18.9 25.0 3.6 82.0 6.0 12.0 12.0 37.0 31.0 66.8 71.5 71.5 25.2 36.2	63.3 82.0 3.5 6.0 67.9 88.0 3.6 6.0 18.9 25.0 6.4 82.0 6.0 25.0 12 88.0 94.0 37.0			Мах	Nom	Мах	Nom		Nom	Max	Nom	Max	Nom	Max	Non	Max	a cy	
82.0 6.0 94.0 25.0 12.0 18.9 25.0 37.0 66.8 71.5 71.5 26.3 37.0 37.	82.0 6.0 25.0 6.4 12 25.0 6.4 12 88.0 94.0 37.0		63.3	82.0	3.5	6.0	67.9		3.6		9	2 2		3				Y BIA
82.0 6.0 12.	88.0 94.0 25.0 37.0 66.8 71.5 67.0	Specification					?		2.5		5.0	7.0.0		12.0	18.9	25.0	3.6	0.9
88.0 94.0 37.0 66.8 71.5	88.0 94.0	Specification	82.	0	9	0					25	0.	12.	o				
66.8	24.5	(Max)		88	0.1			94	0.			37	0			2	-	
		Measured Total		99	8			=	57			25	,			5 8	2 1	

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Section 6

PERFORMANCE ASSURANCE (CDRL 204)

This section consists of a compilation of the Weekly Reports from Quality Assurance.

6.1 Quality Assurance - Following are the Quality Assurance Weekly Reports.

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AMSU-A QUALITY ASSURANCE WEEKLY REPORT FOR WEEK ENDING 3-3-99

Accomplishments Last Week

- 1. Continuing to play phone-tag with Leach Company representatives regarding concerns on the use of tin plating. Meanwhile we've requisitioned a relay from stock and will be sending it to the Design Assurance lab for analysis.
- 2. Traveled to Filtronic (Litton) as part of the on-going diagnostic/reworking of DRO units.
- 3. Source Inspection on the Zero Containers moved to Thursday, 4 March (was 3 March.)
- 4. Continuing to conduct weekly shipping/DD250 coordination, meetings on the 105 Units.

Critical Issues

None

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AMSU-A INSTRUMENT STATUS

INSTRUMENT	S/N 202	S/N 105	S/N 106	S/N 107	S/N 108	S/N 109
A1				•	-	
Machine Subassy					>	In assembly
Antenna Subassy			>	>	Antenna range	
System Integration			Eng CPT	Instrument Integration and test		
PER						
Completed Env. Test & Calibraton Tasks						
Scheduled Env. Test & Calibraton Tasks		In Thermal/Vac Calibration				
Final CPT						
PSR	\rightarrow					
Shipping Configuration	Shipped		:			

AMSU-A INSTRUMENT STATUS

INSTRUMENT	S/N 202	S/N 105	S/N 106	S/N 107	S/N 108	S/N 109
<u>A2</u>						
Machine Subassy			and the state of t			->
Antenna Subassy				>	>	Antenna Assy Integration
System Integration				Integration testing	Initial Assembly	
PER			→			
Completed Env. Test & Calibraton Tasks	<u></u>		EMI, Thermal Cycling, Qual Level Vib. (failed)			
Scheduled Env. Test			Vibration anomaly (reflector /			
& Calibraton Tasks			antenna drive) investigaton			
Final CPT		In Test				
PSR	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \					
Shipping Configuration	Shipped					

AMSU-A STATUS OF OPEN F/ARs

AMSU-A STATUS OF OPEN F/ARs

DOF	FAILED ITEM	PART NO.	SERIAL NO.	DESCRIPTION	STATUS	IPT
7/20/98	METSAT/AMSU-A2 (Floating bits)	1331200-2	105	One or more bits in the Digital B Data Byte 2 reading "1" (S/B "0"). These bits are not used (floating). Wires added to jumper unused inputs to ground.	Final draft routed for review/signature	Nieto
8/19/98	METSAT/AMSU-A2 (RE02 emissions for special frequencies above-	1331200-2	105	RE02 emissions exceeded limits for special frequencies in range of 120 MHz to 123 MHz, except center frequency of 121.5 MHz. Additional shielding used to lower emissions.	Awaiting NASA approval	Paliwoda
8/26/98	METSAT/AMSU-A2 (Channel 4 bandpass had spurlous noise at 26 MHz)	1331200-2	105	Channel 4 bandpass exhibited spurious noise (i.e. approximately +5dB, S/B ±1dB) at 26 MHz. Corrected by grounding W7 cable and wrapping Channel 4 Mixer/IF Amplifier joint with wire mesh tape.	Awaiting NASA approval	Nieto
10/27/98	METSAT/AMSU-A2 (Resonant frequency change in reflector/motor assy)	1331200-2	105	Post-vibration Bode plot for reflector/motor assy. showed a new peak at about 122 HZ and the original resonant frequency peak had shifted from 223.34 HZ to 204.87 HZ. Cracks in bonded reflector joints.	Awaiting NASA approval	Alvarez
11/9/98	METSAT/AMSU-A2 (Faulty PRT)	1331200-2	106	RF Mux PRT read 52.25 C, S/B 25+/-5 C. Cause isolated to faulty PRT.	Troubleshooting/anatysis underway	Nieto
12/22/98	METSAT/AMSU-A2 (Reflector's main resonace shifted)	1331200-2	106	Post Z-axis vibe sine sweep showed 20 Hz shift in first natural frequency. Reflector's main resonance response has changed from 223Hz to 214Hz. R-D converter replaced / SAT resistors changed (as risk mitigation with no evidence of failure).	Troubleshooting/analysis underway	Alvarez
2/22/99	METSAT/AMSU-A2 (Open PRT)	1331200-2	107	PRT 3 (RF Diplexer) open. Dig A Temp reading was 32767, S/B ~18660.	Troubleshooting/analysis underway	A. Nieto
9/24/98	METSAT/AMSU-A1 (Channel 7 bandpass had spurious noise at 12 MHz)	1331720-2	105	Channel 4 bandpass exhibited spurious noise (i.e. approximately +3dB peak) at 12MHz. Corrected by adding EMI mesh around Channel 7 mixer to IF amplifier joint.	Awaiting NASA approval	Nieto
12/5/98	METSAT/AMSU-A1	1331720-2	105	Post X-axis vibration low level sine sweep showed resonance at ~120Hz that was not seen at pre-vibe.	Troubleshooting/analysis underway	Alvarez
1/11/99	METSAT/AMSU-A1	1331720-2	105	PRT #4 on A1-2 feedhorn reading temperature 8- 10 C higher than A1-1 feedhorn.	Troubleshooting/analysis underway	Nieto

AMSU-A STATUS OF OPEN F/ARS

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IPT	Nieto	A. Nieto	Nieto	D. Pines	Alvarez	Alvarez	Nieto	Nieto	Alvarez
STATUS	Troubleshooting/analysis underway	Troubleshooting/analysis underway	Troubleshooting/analysis underway	Troubleshooting/analysis underway	Awaiting NASA approval	Awaiting NASA approval	Need final draft	Troubleshooting/analysis underway at FEI	Awaiting NASA approval
DESCRIPTION	Measurement from TB3-E1 to TB3-E2 for PRT RT3 read open.	Full Print Ch. 12 counts ~9000, S/B 16000-17000. Metal sliver shorting at semi-rigid connector connected to J552.	During integration, +5V and -15V scan drive power supplies went into current limit. Found J403 and J404 connectors for motor driver CCAs installed upside down in upper card cage.	Ch. 5 IF output power was -34.38 dBm (S/B -27+/1 dBm). Capacitor C5 missing in DRO voltage shutdown circuit.	Cracks in corner braze joints observed on secondary reflector housing of the EOS/AMSU-A2 (S/N 202). Housing redesigned.	During T/V test, full vacuum level not maintained at various times during cycling. Cooling system was leaking nitrogen into chamber each time it cycled. Use-As-Is. (COI)	During thermal vacuum at +60°C, the Module 4 outputs lost regulation. Current limiting SAT resistor value too low. High temperature, max load condition not seen in actual operation. FRB approved "Use As Is". (FEI)	Turn-on inrush current for main load bus (1st current spike) below normal. DC-DC Converter(FM7) replaced. R600 resistor was out-of-spec.	Computed means for down track angle on beam positions 1 & 15 slightly above spec. Reflector(P/N 1355835-1, S/N 6) replaced with S/N 7. Alignment measurements within spec.
SERIAL NO.	106	106	107	107	N/A	008, 009	FM5	106	F03
PART NO.	1331720-2	1331720-2	1331720-2	1331720-2	1333382	1355835	1356010	1331720-2	1331210-3
FAILED ITEM	METSAT/AMSU-A1	METSAT/AMSU-A1 (Short at connector)	METSAT/AMSU-A1 (CCA connectors inserted upside down)	METSAT/AMSU-A1 (Missing capacitor in DRO)	Secondary Reflector Housing (Cracked)	Reflector (Full vacuum not maintained during T/V test)	DC-DC Converter (Lost regulation; SAT resistor value too low).	METSAT/AMSU-A1 (Resistor out-of-spec.)	A2 Antenna Assembly
DOF	1/21/99	3/1/99	11/25/98	2/19/99	6/18/98	4/27/98	6/25/98	2/2/99	5/27/98
F/AR NO.	182	189	170	187	960	081	094	184	980

AMSU-A STATUS OF OPEN F/ARs

FAILED ITEM	PART SERIAL NO. NO.	DESCRIPTION	STATUS	ΙĐΤ
133	1331400-2 F03	Channel 15 beampointing much different from Channels 3-14. Burrs/debris found inside feedhorn. Feedhorn replaced.	Awaiting rework/retest.	Alvarez
1331	1331400-2 F03	Beamwidth at Beam Position 15 (crosstrack) for Channel 15 was 3.73 degrees, S/B 2.97 to 3.63 degrees. Feedhorn replaced.	Troubleshooting/analysis underway	Alvarez
1331562-11	62-11 7A31	N.F. was 3.6dB, S/B 3.5dB max. LO to RF isolation was 25.4dB, S/B 30dB min. Unit retuned at Spacek. Now meets all requirements. Range expanded for setting L.O. power	Awaiting NASA approval	Pines
133156	562-12 7A32	1) Noise Figure measured 3.3dB (S/B 3.2dB max) at L.O. power setting of +11.5dBm. 2) Overall gain measured 66.59dB, S/B 65±1.0dB. SDARs approved: Use-As-Is.	Awaiting NASA approval.	Pines
133156	562-13 7A43	1) Mixer LO to RF isolation was 27.2dB, S/B 30db min. 2) Overall Gain was 66.47dB, S/B 65 +/- 1.0dB. No system impact. Use-As-Is.	Awaiting NASA approval	Pines
133156	562-14 7A24	Gain sensitivity measured 1.50dB, S/B 1.4dB max. No longer a requirement at this level. SDAR withdrawn.	Awaiting NASA approval.	Pines
133156	562-14 7A34	1) Gain Flatness was 0.55dB peak-to-peak, S/B 0.05 dB max. 2) Mixer LO to RF isolation was 25.5dB, S/B 30db min. 3) N.F. was 3.3dB (S/B 3.2dB max) at L.O. power setting of +11.5dBm. 4) Overall gain was 66.32dB, S/B 65±1.0dB. Use-As-Is.	Awaiting NASA approval.	Pines
13315	562-14 7A44	1) N.F. was 3.85dB (S/B 3.8dB max) at L.O. power setting of +11.5dBm. 2) Mixer LO to RF isolation was 28.5dB, S/B 30db min. 3) Gain Flatness was 0.52dB peak-to-peak, S/B 0.5 dB max. 4) Overall Gain was 66.41dB, S/B 65 +/-1.0dB. Unit retuned.	Awaiting NASA approval	Pines

AMSU-A STATUS OF OPEN F/ARs

FAILI	FAILED ITEM	PART NO.	SERIAL NO.	DESCRIPTION	STATUS	ΙĐΤ
Mixer-Amplifier 133 (Out-of-spec condition)	133	1331562-14	7A54	Gain Flatness was 0.52 dB peak-to-peak, S/B 0.5 dB max. No system impact. "Use-As-Is".	Awaiting NASA approval	Pines
Mixer/Ampliffer 13315 (Output low)	13318	1331562-16	7A16	During noise figure test of a suspect DRO, mixer output was below -30dBM (S/B -27dBm +/-1dBm).	: Awaiting NASA approval	Pines
Mixer-Ampliffer (Out-of-spec condition)	13315	1562-17	7A47	1) Mixer LO to RF isolation was 26.5dB, S/B 30db mln. 2) Overall Gain was 66.40dB, S/B 65 +/-1.0dB. No system impact. Use-As-Is.	Awaiting NASA approval	Pines
Mixer-Amplifier (Out-of-spec condition)	13315	1562-18	7A58	Gain Flatness was 0.58 dB peak-to-peak, S/B 0.5 dB max. No system impact. "Use-As-Is".	Awaiting NASA approval	Pines
Mixer-Amplifier 133156 (Out-of-spec condition)	133156	1562-18	7A68	Gain Flatness was 0.62 dB peak-to-peak, S/B 0.5 dB max. No system impact. "Use-As-Is".	Awaiting NASA approval	Pines
Mixer-Amplifier (Out-of-spec condition)	133156	2-19	7A69	1. LO to RF isolation measured 25.3 dB with +8.5 dBm LO power, S/B 27.5 dB min. 2. During input voltage and current test, current measured 51.1 mA @ +21 C, 50.9 mA @ -30 C and 51.0 mA @ +60 C, S/B 45 mA max. 3. Gain Flatness was 0.68 dB peak-to-peak, S/B 0.5 dB max. No system impact. "Use-As-Is".	Awaiting NASA approval	Pines
Mixer-Amplifier 1331562-19 (Out-of-spec condition)	133156:	2-19	7A59	1. During input voltage and current test, current measured 50.8 mA @ +21 C, 50.6 mA @ -30 C and 51.0 mA @ +60 C, S/B 45 mA max. 2. Gain Flatness was 0.54 dB peak-to-peak, S/B 0.5 dB max. 3. Total Delta Gain measures 1.49 dB, S/B 1.4 dB max. No system impact. "Use-As-Is".	Awaiting NASA approval	Pines
Mixer-Amplifier (Out-of-spec condition)	133156	2-20	7A40	1) Gain Flatness was between 1.1 and 1.5dB, S/B 1.0dB peak-to-peak. 2) Gain Flatness was 1.38dB peak-to-peak, S/B 1.0dB max. 3) Mixer LO to RF isolation was 22.5dB, S/B 30db min. 4) N.F. was 3.96dB (S/B 3.8dB max). Use-As-Is.	Awaiting NASA approval.	Pines
Mixer-Amplifier (Out-of-spec condition)	133156	2-20	7A60	Gain Flatness was 1.15 dB peak-to-peak, S/B 1.0 dB max. No system impact. "Use-As-Is".	Awaiting NASA approval	Pines

AMSU-A STATUS OF OPEN F/ARS

F/AR NO.	DOF	FAILED ITEM	PART NO.	SERIAL NO.	DESCRIPTION	STATUS	IPT
072	4/10/98	Compensator (Drive assembly supply current above spec.)	1333660-1	F06	Drive assembly supply current above spec. at -10 C. Measured 51mADC (S/B 50 mADC max). No system impact. Use As Is.	Awaiting NASA approval	Alvarez
100	86////	Compensator (Thermistor out-of-spec; connector miswired)	1333660-1	F09	Thermistor read 28 VDC, S/B 3.91 to 4.77 VDC. Connector leads to pins #15 and #21 were miswired.	Awaiting NASA approval	Alvarez
101	7/14/98	Stable Oscillator (Output power stability out-of-spec)	1336610-3	85096	Output power stability variation of 1.2 dB plus .5 dB allowance for aging exceeds spec of +/- 1.5 dB. (Litton)	Need final draft	Pines
095	6/29/98	Stable Oscillator (Low output)	1336610-5	85033	During post-rework confidence test, oscillator exhibited reduced output of 10 dBM. Previously measured 11.8 dBM. (Litton)	Troubleshooting/analysis underway	Pines
178	12/26/98	DRO, Channel 8	1336610-7	85074 (Removed from A1-105)	During the transition from +25C to -12C (T/C # 1), the Channel 8 radiometric counts decreased from ~ 16,000 to ~ 8000. Cause isolated to CH 8 DRO.	Troubleshooting/analysis underway	Pines
8/0	4/17/98	DRO, Channel 7 (Channel 6 N.F. and Channel 7 NEdeltaT anomalies)	1336610	85022 (Removed from A1-202)	Channel 7 NEdeltaT was between .45K and .65K (S/B .25 max)	Awaiting NASA approval	Pines
106	7/21/98	Stable Oscillator (Faulty Gunn Diode)	1336610-10	FM2 (Removed from A1-202)	FM2 During CS02 EMI testing, channel 15 counts (Removed dropped from 16200 to 11200. Cause isolated to from A1-202) faulty GDO. Gunn diode shorted.	Awaiting NASA approval.	Pines
133	8/2/98	DRO, Channel 7 (Channel 7 NEdeltaT degraded)	1336610	85022 (Removed from A1-202)	After X-axis vibe, Channel 7 NEdettaT was 0.447, S/B<0.25. Metal shavings in waveguide.	Awaiting NASA approval	Pines
152	9/16/98	Bearing Assembly	1338266-1	Removed from A2 (105)	Barden examination of bearings removed from A2 drive assembly(F02) revealed contamination. Post vibration sine sweep anomaly caused by cracks in reflector bond area (See F/AR 160), not drive assy/bearings.	Analysis of removed bearings in progress.	Alvarez
075	4/11/98	57 GHz VCGDO (Gunn diode replaced)	1348351-1	79032	V(tune) changed by more than 5V+/-1V. (Litton)	Awaiting NASA approval	Pines

AMSU-A STATUS OF OPEN F/ARS

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F/AR NO.	DOF	FAILED ITEM	PART NO.	SERIAL NO.	DESCRIPTION	STATUS	ΙĐΙ
104	7/18/98	VCGDO (Foreign material in waveguide)	1348351-1	79039	Foreign material observed inside waveguide.	Troubleshooting/anatysis underway	Pines
092	6/15/98	PLO Assembly (Lost lock at +60 C: EMI/RFI filter shorted)	1348360-1	F05	During T/C, broke lock at +60 C. +15V supply dropped to +5V. Isolated cause to shorted EMI/RFI filter. During T/C, exhibited random spurs about main carrier signal. VCGDO and faceplate EMI filters replaced. Problem still exists.	Troubleshooting/analysis underway	Pines
093	6/16/98	PLO Assembly (Lost lock between 32 C & 34.5 C)	1348360-1	F06	PLO lost lock when baseplate temperature was between 32 C and 34.5 C. Unit retuned (R1, R2 reselected). Deadband resolved.	Awaiting NASA approval	Pines
139	8/20/98	PLO Assembly (Spurs in main carrier signal)	1348360-1	F07, F08	During T/C, multiple spurs in main carrier signal. After both units were temperature cycled (before and after retuning) carrier signals showed no spurs.	Awaiting NASA approval	Pines
158	10/20/98	PLO Assembly (Loose screw on DRO cover)	1348360-1	F09	DRO sweep frequency center was 6.899 GHz, S/B 6.8748 GHz. DRO signal would not lock. Loose screw found on DRO cover.	Awaiting NASA approval	Pines
159	10/26/98	PLO Assembly (Resonator puck bond failure)	1348360-1	F10	PLO carrier lock signal was missing and the DRO sweep signal shifted. DRO opened and resonator puck found loose from DRO CCA.	Awaiting NASA approval	Pines
183	2/2/99	PLO Assembly (Test setup current limit set low)	1348360-1	F11	During LPT, after Z-axis vibe, did not lock. Current limit in test setup for -15V inadvertently set to 80mA, S/B 100 mA. No failure of flight hardware.	Awaiting NASA approval	Pines
185	2/9/99	PLO Assembly	1348360-1	F12	PLO ouput power dropped at high temp (+44C).	Troubleshooting/analysis underway	Pines
163	11/2/98	DRO Assembly (DRO cover reversed)	1348400-1	F10	DRO signal shifted 10 MHz to right of center frequency. DRO cover found reversed 180 degrees.	Awaiting NASA approval	Pines
061	3/19/98	PLL Assembly (Faulty U2)	1348500-1	F06	Low resistance across C22. Cause isolated to faulty U2. Analysis Indicated ESD damage.	Awaiting NASA approval: Pending calibration completion	Pines

AMSU-A STATUS OF OPEN F/ARs

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IPT	Pines	Pines	Pines	S.	듄	Pi	ā.	<u>ā</u>	10.	<u>a</u>
STATUS	Awaiting NASA approval	Awaiting NASA approval	Awaiting NASA approval	Troubleshooting/analysis underway	Pre-ATP test incorporated: Need final draft	Troubleshooting/analysis underway	Awaiting NASA approval	Awatting NASA approval	Awaiting NASA approval	Troubleshooting/analysis underway
DESCRIPTION	During continuity test of C21, resistance was 7.5 kohms (S/B>1Mohm). Isolated to faulty U2; base-emitter shorted; inadequate emitter well coverage.	During continuity test, resistance across C21, C22 and C24 measured 3.94Kohms, 260 ohms and 2.8 Kohms (S/B >1Mohm, >500 ohms, >1Mohm). U2 found defective; base-emitter shorted; inadequate emitter well coverage.	Output voltage of MMIC Amplifier (U1) measured 4.78 V, S/B 4 +/- 0.5V. Spec. for Vd changed to 3.5V to 5.5V.	PRT RT19 reads open; PRT RT22 is shorted.	Channels 3, 5 and 8 falled Noise Power Stability (NPS). The readings were .23, .107 and .108, S/B .12, .08 and .08 maximum.	Channel 8 noise figure failed at +44 C. Could not be repeated. DRO replaced.	Channel 6 noise figure was 5.96 dB (S/B 5.2 dB max). Fault isolated to DRO. After DRO replacement, NF passed.	Channel 6 Noise Power Stability was 0.146 (S/B 0.08 max). LO output power to mixer reduced by adjusting waveguide attenuator. NPS reduced to .03.	During ATP, PLO lock detect was +11V, S/B +14V min. Cause isolated to reverse-biasing of C8 on Loop-Amp CCA. Design changes implemented.	During receiver level adjustment of PLO power, PLO S/N F06 lost lock after 10 to 15 minutes .
SERIAL NO.	F10	F13	F14	F02	F03	F03	F04	F02	F02	F04
PART NO.	1348500-1	1348500-1	1348500-1	1356409-1	1356409-1	1356409-1	1356429-1	1356429-1	1356429-1	1356429-1
FAILED ITEM	PLL Assembly (Faulty U2)	PLL Assembly (Faulty U2)	PLL Assembly (Vd of U1 out-of-limit)	A1-2 Receiver (PRT RT19 open; PRT RT22 shorted)	A1-2 Receiver (Noise power stability above spec.)	A1-2 Receiver (Ch.8 N.F. anomaly)	A1-1 Receiver	A1-1 Receiver (Noise power stability above spec.)	A1-1 Receiver (PLO lock detect below spec. C8 reverse-biased)	A1-1 Receiver (PLO loses lock)
DOF	5/28/98	7/15/98	1/7/99	86/8/8	9/17/98	11/19/98	4/1/98	8/14/98	8/25/98	11/17/98
F/AR NO.	087	103	180	134	153	168	070	136	140	166

AMSU-A STATUS OF OPEN F/ARS

F/AR NO.	DOF	FAILED ITEM	PAKI NO.	SERIAL NO.	DESCRIPTION	STATUS	IPT
060	86/2/98	A2 Receiver (Channel 1 noise above spec.)	1356441-1	F02	Channel 1 noise figure read 4.6 dB (S/B 4.5 dB max). Corrected by increasing power to mixer: Reduced N.F. to 4.26 dB. No impact at receiver level.	Awaiting NASA approval	Pines
130	7/27/98	A2 Receiver (Faulty PRT)	1356441-1	F03	Resistance of PRT (RT17) measured 2.586kohm, S/B 2.2kohm +/-100ohm.	Troubleshooting/analysis underway	Pines
131	7/28/98	A2 Receiver	1356441-1	F03	During N.F. test of Ch 2, IF power increased 8dB. No change in output (warm load to cold load).	Troubleshooting/analysis underway	Pines
129	7/27/98	Power Relay and Housekeeping CCA (Wrong value resistor[R37)	1356969-1	C/N 002	Voltage Monitor Signal No. 9 measured 4.08V, S/B 2.85 to 3.15V. Value of R37 was incorrect (measured 14.964kohm, S/B 10kohm).	Need final draft	Nieto
260	7/2/98	V-Band PLO (TRW) (EMI test anomalies)	857270-001	000	Emission levels exceeded spec during RE02 narrowband and CE03 narrowband. No system impact. TRW to add conductive epoxy around worst leakage areas. (TRW)	Awaiting NASA approval	Pines

AMSU-A QUALITY ASSURANCE WEEKLY REPORT FOR WEEK ENDING 3-10-99

Accomplishments Last Week

- 1. Spent two days on-site at Zero Manufacturing inspecting and assembling documentation in support of the delivery of last four shipping containers. All units were accepted but it took our time to coordinate and assemble the shipping documentation. Another company purchased Zero and the QA Manager hasn't been replaced leaving a void in problem resolution.
- 2. Supported the TRR's on the A2-105 Momentum Compensation, Weight and C.G. Testing.
- 3. Supported FRB's including in-house sessions on the A2 106 testing anomalies.
- 4. Received a memo from Leach International, stating their relays are Electroless Nickel plated. Copies of the memo were sent to W. Daney, D. Crosby, and S. Krimchansky. Aerojet will not perform analysis on parts in inventory per the Weekly Telecon of 3/8/99.

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None

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AMSU-A INSTRUMENT STATUS

INSTRUMENT	S/N 202	S/N 105	S/N 106	S/N 107	S/N 108	S/N 109
<u>A1</u>						
Machine Subassy					>	In assembly
Antenna Subassy				·····	Antenna range	
System Integration				Eng CPT		·
PER						
Completed Env. Test & Calibraton Tasks	-		Baseline CPT		•	·
Scheduled Env. Test & Calibraton Tasks		In Thermal/Vac Calibration				
Final CPT						
PSR	->		•		•	
Shipping Configuration	Shipped					
,						
					· .	

AMSU-A INSTRUMENT STATUS

INSTRUMENT	S/N 202	S/N 105	S/N 106	S/N 107	S/N 108	S/N 109
<u>A2</u>						
Machine Subassy						→
Antenna Subassy				>	>	Antenna Assy Integration
System Integration				Eng CPT	Initial Assembly	
PER			→			
Completed Env. Test & Calibraton Tasks	-		EMI, Thermal Cycling, Qual Level Vib. (failed)			
Scheduled Env. Test & Calibraton Tasks			Vibration anomaly (reflector / antenna drive) investigaton			
Final CPT		>				
PSR	>	PreShip				
Shipping Configuration	Shipped					

METSATIAMSU-AZ 1331200-2 105	F/AR NO.	DOF	FAILED ITEM	PART NO.	SERIAL NO.	DESCRIPTION	STATUS	IPT
METSATIAMSU-A2 REC02 emissions for special frequencies in rarge of 120 MHz. 10.133 MHz. special frequencies above special frequencies in rarge of 120 MHz. 10.133 MHz. special frequencies above special frequency of 1215. MHz. Additional shielding used to lower emissions. Additional shielding used to lower emissions changed to reduce the shielding used to lower emissions. Additional shielding used to lower emissions character and special shielding used to lower emissions character and states and wrapping channel 4 bandpass shielding shielding shielding shielding shielding shielding shielding shielding shielding link with mesh and shielding link with mesh and seen		7/20/98	METSAT/AMSU-A2 (Floating bits)	1331200-2	105	One or more bits in the Digital B Data Byte 2 reading "1" (S/B "0"). These bits are not used (floating). Wires added to jumper unused inputs to ground.	Awaiting NASA approval	Nieto
1027/98 RETSAT/AMSU-AZ 1331200-2 105 American frequency peak had shifted from assy) 11/9/98 RESONANT frequency 1331200-2 105 American frequency peak had shifted from assy) 11/9/98 RETSAT/AMSU-AZ 1331200-2 106 RF Mux PRT read 52.25 C, S/B 25+/-5 C. Cause frequency peak had shifted from peak at a about 122 HZ and the neflector/motor peak had shifted from 223.4 HZ to 204.87 HZ. Crecks in bonded reflector joints. 10.5 American frequency peak had shifted from 223.4 HZ to 204.87 HZ. Crecks in bonded reflector joints. 1.2/22/98 RETSAT/AMSU-AZ 1331200-2 106 RF Mux PRT read 52.25 C, S/B 25+/-5 C. Cause in frequency peak had shifted from 1331200-2 106 RF Mux PRT read 52.25 C, S/B 25+/-5 C. Cause in frequency peak had shifted from 1331200-2 106 RF Mux PRT read 52.25 C, S/B 25+/-5 C. Cause in frequency peak had shifted from 1331200-2 107 RFT 3 (RF Diplexer) open. Dig A Temp reading spurious noise at 26 1331720-2 107 RFT 3 (RF Diplexer) open. Dig A Temp reading Channel beandpass had spurious noise at 12 1331720-2 105 Channel 4 bandpass swhibited spurious noise at 12 1331720-2 105 Channel 4 bandpass swhibited spurious noise at 12 1331720-2 105 RFT #4 on A1-2 feedhorn reading temperature 8-1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/		8/19/98	METSAT/AMSU-A2 (RE02 emissions for special frequencies above- spec)		105	RE02 emissions exceeded limits for special frequencies in range of 120 MHz to 123 MHz, except center frequency of 121.5 MHz. Additional shielding used to lower emissions.	Awaiting NASA approval	Paliwoda
11/9/98 METSAT/AMSU-A2 1331200-2 106 Isolated to faulty PRT read 52.25 C, S/B 25+1-5 C. Cause Isolated to faulty PRT		10/27/98	METSAT/AMSU-A2 (Resonant frequency change in reflector/motor assy)	1331200-2	105	Post-vibration Bode plot for reflector/motor assy. showed a new peak at about 122 HZ and the original resonant frequency peak had shifted from 223.34 HZ to 204.87 HZ. Cracks in bonded reflector joints.	Awaiting NASA approval	Alvarez
METSAT/AMSU-A2 (Reflector's main resonance shifted) 2/22/99 (Reflector's main resonance shifted) METSAT/AMSU-A2 (Tailure) 2/22/99 (Open PRT) METSAT/AMSU-A1 (Channel 4 bandpass had spundous noise at 26 spundous noise at 12 spundous noise at 12 metsations (Channel 7 bandpass had spundous noise at 12 metsations) METSAT/AMSU-A1 (Tailure) METSAT/AMSU-A1 (Tailure) METSAT/AMSU-A1 (Tailure) METSAT/AMSU-A1 (Tailure) METSAT/AMSU-A1 (Tailure) METSAT/AMSU-A1 (Tailure) Dost X-axis vibration low level sine sweep shift at part was not seen at pre-vibe. PRT 3 (RF Diplexer) open. Dig A Temp reading was 32767, S/B -18650. Channel 4 bandpass exhibited spundous noise (1.e. approximately +5dB, S/B ±1dB) at 26 MHz. Corrected by grounding V/T cable and wrappling tappoximately +3dB peak) at 12MHz. Corrected spundous noise at 12 approximately +3dB peak) at 12MHz. Corrected by adding EMI mesh around Channel 7 mixer to 16 metsature 8 showed resonance at ~120Hz that was not seen at pre-vibe. 1/11/99 METSAT/AMSU-A1 1331720-2 105 showed resonance at ~120Hz that was not seen at pre-vibe.		11/9/98	METSAT/AMSU-A2 (Faulty PRT)	1331200-2	106	RF Mux PRT read 52.25 C, S/B 25+/-5 C. Cause isolated to faulty PRT.	Troubleshooting/analysis underway	Nieto
METSAT/AMSU-A2 (Open PRT) METSAT/AMSU-A2 (Open PRT) METSAT/AMSU-A1 (Channel 4 bandpass had spurious nolse at 26 (Channel 7 bandpass had spurious nolse at 12 (Channel 7 bandpass had spurious nolse (Leadhorm feading temperature 8 (Channel 7 bandpass had spurious nolse (Leadhorm feading temperature 8 (Channel 7 bandpass had spurious nolse (Leadhorm feading temperature 8 (Channel 7 bandpass had spurious nolse (Leadhorm feading temperature 8 (Channel 7 bandpass had spurious nolse (Leadhorm feading temperature 8 (Channel 7 bandpass had spurious nolse (Leadhorm feading temperature 8 (Channel 7 bandpass had spurious nolse (Leadhorm feading temperature 8 (Channel 7 bandpass had spurious nolse (Leadhorm feading temperature 8 (Leadhorm feading temperatur		12/22/98	METSAT/AMSU-A2 (Reflector's main resonance shifted)	1331200-2	106	Post Z-axis vibe sine sweep showed 20 Hz shift in first natural frequency. Reflector's main resonance response has changed from 223Hz to 214Hz. R-D converter replaced / SAT resistors changed (as risk mitigation with no evidence of failure).	Troubleshooting/analysis underway	Alvarez
HETSAT/AMSU-A1 (Channel 4 bandpass had spurious noise at 26 (Channel 4 bandpass had spurious noise at 26 (Channel 4 bandpass had spurious noise at 26 (Channel 4 bandpass exhibited spurious noise at 26 (Channel 7 bandpass had spurious noise at 12 (Channel 7 bandpass exhibited spurious noise (i.e. approximately +3dB peak) at 12MHz. Corrected by adding EMI mesh around Channel 7 mixer to 15 showed resonance at ~120Hz that was not seen at pre-vibe. (Channel 4 bandpass exhibited spurious noise (i.e. approximately +3dB peak) at 12MHz. Corrected by adding EMI mesh around Channel 7 mixer to 16 showed resonance at ~120Hz that was not seen at pre-vibe. (Channel 7 bandpass exhibited spurious noise (i.e. approximately +3dB peak) at 12MHz. Corrected by adding EMI mesh around Channel 7 mixer to 16 showed resonance at ~120Hz that was not seen at pre-vibe. (Channel 7 bandpass exhibited spurious noise (i.e. approximately +3dB peak) at 12MHz. Corrected by adding EMI mesh around Channel 7 mixer to 12/5/98 meTSAT/AMSU-A1 1331720-2 105 showed resonance at ~120Hz that was not seen at pre-vibe.		2/22/99	METSAT/AMSU-A2 (Open PRT)	1331200-2	107	PRT 3 (RF Diplexer) open. Dig A Temp reading was 32767, S/B ~18660.	Troubleshooting/analysis underway	A. Nieto
WETSAT/AMSU-A1 (Channel 7 bandpass had spurious noise at 12 (Channel 7 bandpass had spurious noise at 12 (Channel 7 bandpass had spurious noise at 12 (Channel 7 bandpass exhibited spurious noise (i.e. approximately +3dB peak) at 12MHz. Corrected by adding EMI mesh around Channel 7 mixer to IF amplifier joint. Post X-axis vibration low level sine sweep showed resonance at ~120Hz that was not seen at pre-vibe. 1/11/99 METSAT/AMSU-A1 1331720-2 105 PRT #4 on A1-2 feedhorn reading temperature 8-10 C higher than A1-1 feedhorn.	-	8/26/98	METSAT/AMSU-A1 (Channel 4 bandpass had spurious nolse at 26 MHz)	1331720-2	105	Channel 4 bandpass exhibited spurious noise (I.e. approximately +5dB, S/B ±1dB) at 26 MHz. Corrected by grounding W7 cable and wrapping Channel 4 Mixer/IF Ampliffer joint with wire mesh tape.	Awaiting NASA approval	Nieto
METSAT/AMSU-A1 1331720-2 105 showed resonance at ~120Hz that was not seen at pre-vibe. METSAT/AMSU-A1 1331720-2 105 showed resonance at ~120Hz that was not seen at pre-vibe. ART #4 on A1-2 feedhorn reading temperature 8-10 C higher than A1-1 feedhorn.		9/24/98	METSAT/AMSU-A1 (Channel 7 bandpass had spurlous noise at 12 MHz)	1331720-2	105	Channel 4 bandpass exhibited spurious noise (i.e. approximately +3dB peak) at 12MHz. Corrected by adding EMI mesh around Channel 7 mixer to IF amplifier joint.	Awaiting NASA approval	Nieto
METSAT/AMSU-A1 1331720-2 105 PRT #4 on A1-2 feedhorn reading temperature 8-		12/5/98	METSAT/AMSU-A1	1331720-2	105	Post X-axis vibration low level sine sweep showed resonance at ~120Hz that was not seen at pre-vibe.	Final draft routed for review/signature	Alvarez
		1/11/99	METSAT/AMSU-A1	1331720-2	105	PRT #4 on A1-2 feedhorn reading temperature 8-10 C higher than A1-1 feedhorn.	Final draft in preparation	Neto

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IPT	Paliwoda	Paliwoda	Nieto	Nieto	A. Nieto	Nieto	D. Pines	Alvarez	Alvarez	Nieto
STATUS	Final draft in preparation	Final draft in preparation	Troubleshooting/analysis underway	Troubleshooting/analysis underway at FEI	Troubleshooting/analysis underway	Troubleshooting/analysis underway	Troubleshooting/analysis underway	Awalting NASA approval	Awaiting NASA approval	Need final draft
DESCRIPTION	Out-of-spec calculated linearity on Channels 6, 7, 9 thru 14.	When using METOP gnd (Task 12) to determine effect on AMSU-A calib., count difference between samples 1 and 2 was 10-15, expected is 6-7.	Measurement from TB3-E1 to TB3-E2 for PRT RT3 read open.	Turn-on inrush current for main load bus (1st current spike) below normal. DC-DC Converter(FMT) replaced. R600 resistor was out-of-spec.	Full Print Ch. 12 counts ~9000, S/B 16000-17000. Metal sliver shorting at semi-rigid connector connected to J552.	During integration, +5V and -15V scan drive power supplies went into current limit. Found J403 and J404 connectors for motor driver CCAs installed upside down in upper card cage.	Ch. 5 IF output power was -34.38 dBm (S/B -27+/+1 dBm). Capacitor C5 missing in DRO voltage shutdown circuit.	Cracks in corner braze joints observed on secondary reflector housing of the EOS/AMSU-A2 (S/N 202). Housing redesigned.	During T/V test, full vacuum level not maintained at various times during cycling. Cooling system was leaking nitrogen into chamber each time it cycled. Use-As-Is. (COI)	During thermal vacuum at +60°C, the Module 4 outputs lost regulation. Current limiting SAT resistor value too low. High temperature, max load condition not seen in actual operation. FRB approved "Use As Is". (FEI)
SERIAL NO.	105	105	106	106	106	107	107	N/A	008, 009	FM5
PART NO.	1331720-2	1331720-2	1331720-2	1331720-2	1331720-2	1331720-2	1331720-2	1333382	1355835	1356010
FAILED ITEM	METSAT/AMSU-A1 (Out-of-spec linearity)	METSAT/AMSU-A1 (High count defta using METOP gnd)	METSAT/AMSU-A1	METSAT/AMSU-A1 (Resistor out-of-spec.)	METSAT/AMSU-A1 (Short at connector)	METSAT/AMSU-A1 (CCA connectors inserted upside down)	METSAT/AMSU-A1 (Missing capacitor in DRO)	Secondary Reflector Housing (Cracked)	Reflector (Full vacuum not maintained during T/V test)	DC-DC Converter (Lost regulation; SAT resistor value too low).
DOF	2/17/99	2/23/99	1/21/99	2/2/99	3/1/99	11/25/98	2/19/99	6/18/98	4/27/98	6/25/98
F/AR NO.	190	191	182	184	189	170	187	960	081	094
				•		109				

Page 2

F/AR NO.	DOF	FAILED ITEM	PART NO.	SERIAL NO.	DESCRIPTION	STATUS	ΙΡΤ
086	5/27/98	A2 Antenna Assembly	1331210-3	F03	Computed means for down track angle on beam positions 1 & 15 slightly above spec. Reflector(P/N 1355835-1, S/N 6) replaced with S/N 7. Alignment measurements within spec.	Awaiting NASA approval	Alvarez
107	7/21/98	A1 Antenna Assembly (Burrs/debrls inside feedhorn)	1331400-2	F03	Channel 15 beampointing much different from Channels 3-14. Burrs/debris found inside feedhorn. Feedhorn replaced.	Awaiting rework/retest.	Alvarez
161	10/29/98	A1 Antenna Assembly (Burrs/debris inside feedhorn)	1331400-2	F03	Beamwidth at Beam Position 15 (crosstrack) for Channel 15 was 3.73 degrees, S/B 2.97 to 3.63 degrees. Feedhorn replaced.	Troubleshooting/analysis underway	Alvarez
860	6/30/98	Mixer-Amplifier (Out-of-spec condition)	1331562-11	7A31	N.F. was 3.6dB, S/B 3.5dB max. LO to RF isolation was 25.4dB, S/B 30dB min. Unit retuned at Spacek. Now meets all requirements. Range expanded for setting L.O. power	Awaiting NASA approval	Pines
119	86/30/98	Mixer-Amplifier (Out-of-spec condition)	1331562-12	7A32	1) Noise Figure measured 3.3dB (S/B 3.2dB max) at L.O. power setting of +11.5dBm. 2) Overall gain measured 66.59dB, S/B 65±1.0dB. SDARs approved: Use-As-Is.	Awaiting NASA approval.	Pines
144	8/27/98 9/1/98	Mixer-Amplifier (Out-of-spec condition)	1331562-13	7A43	1) Mixer LO to RF isolation was 27.2dB, S/B 30db min. 2) Overall Gain was 66.47dB, S/B 65 +/- 1.0dB. No system impact. Use-As-Is.	Awaiting NASA approval	Pines
112	6/30/98	Mixer-Amplifier (Out-of-spec condition)	1331562-14	7A24	Gain sensitivity measured 1.50dB, S/B 1.4dB max. No longer a requirement at this level. SDAR withdrawn.	Awaiting NASA approval.	Pines
120	96/30/98	Mixer-Amplifier (Out-of-spec condition)	1331562-14	7A34	1) Gain Flatness was 0.55dB peak-to-peak, S/B 0.05 dB max. 2) Mixer LO to RF isolation was 25.5dB, S/B 3odb min. 3) N.F. was 3.3dB (S/B 3.2dB max) at L.O. power setting of +11.5dBm. 4) Overall gain was 66.32dB, S/B 65±1.0dB. Use-As-Is.	Awaiting NASA approval.	Pines

Pines Pines Pines Pines Pines Pines Pines Pines IPT Awaiting NASA approval Awalting NASA approval Awaiting NASA approval Awaiting NASA approval STATUS Gain Flatness was 0.52 dB peak-to-peak, S/B 0.5 Gain Flatness was 0.58 dB peak-to-peak, S/B 0.5 Galn Flatness was 0.62 dB peak-to-peak, S/B 0.5 Gain Flatness was 0.68 dB peak-to-peak, S/B 0.5 1) Mixer LO to RF Isolation was 26.5dB, S/B 30db and 51.0 mA @ +60 C, S/B 45 mA max. 2. Gain During noise figure test of a suspect DRO, mixer S/B 1.4 dB max. No system impact. "Use-As-Is". 1. During input voltage and current test, current 2. During input voltage and current test, current measured 51.1 mA @ +21 C, 50.9 mA @ -30 C measured 50.8 mA @ +21 C, 50.6 mA @ -30 C Flatness was 0.54 dB peak-to-peak, S/B 0.5 dB Flatness was 0.52dB peak-to-peak, S/B 0.5 dB power setting of +11.5dBm. 2) Mixer LO to RF max. 4) Overall Gain was 66.41dB, S/B 65 +/min. 2) Overall Gain was 66.40dB, S/B 65 +/max. 3. Total Delta Gain measures 1.49 dB. Isolation was 28.5dB, S/B 30db min. 3) Gain 1. LO to RF isolation measured 25.3 dB with 1) N.F. was 3.85dB (S/B 3.8dB max) at L.O. output was below -30dBM (S/B -27dBm +/and 51.0 mA @ +60 C, S/B 45 mA max. dB max. No system impact. "Use-As-Is". dB max. No system impact. "Use-As-Is". dB max. No system impact. "Use-As-Is". dB max. No system impact. "Use-As-is" 1.0dB. No system impact. Use-As-is. +8.5 dBm LO power, S/B 27.5 dB mln. DESCRIPTION 1.0dB. Unit retuned. 1dBm). SERIAL **7A16 7A69** 7A59 Š. **7A44 7A54 7**A47 7A58 7A68 1331562-14 1331562-14 1331562-16 1331562-18 1331562-19 1331562-19 1331562-17 1331562-18 PART Ö (Out-of-spec condition) **FAILED ITEM** Mixer-Amplifier Mixer-Amplifier Mixer-Amplifier Mixer-Ampliffer Mixer-Amplifier Mixer-Amplifier Mixer/Amplifler Mixer-Amplifier (Output low) 8/27/98 8/31/98 9/1/98 8/27/98 9/1/98 12/1/98 12/1/98 12/1/98 12/1/98 12/1/98 4/14/98 DOF F/AR NO. 145 148 174 72 073 173 176 177

STATUS OF OPEN F/ARS

A-MSM-A

FAIL	FAILED ITEM	PART NO.	SERIAL NO.	DESCRIPTION	STATUS	IPT
Mixer-Amplifier (Out-of-spec condition)	133	1331562-20	7A40	1) Gain Flatness was between 1.1 and 1.5dB, S/B 1.0dB peak-to-peak. 2) Gain Flatness was 1.38dB peak-to-peak, S/B 1.00dB max. 3) Mixer LO to RF Isolation was 22.5dB, S/B 30db min. 4) N.F. was 3.96dB (S/B 3.8dB max). Use-As-Is.	Awaiting NASA approval.	Pines
(Out-of-spec condition) 1331	1331	1331562-20	7A60	Gain Flatness was 1.15 dB peak-to-peak, S/B 1.0 dB max. No system impact. "Use-As-Is".	Awaiting NASA approval	Pines
(Out-of-spec condition)	1331	1331562-20	7A50	1) RF return loss was 11.0dB @ 87.45GHz, 13.5dB @ 89.00GHz, 11.4dB @ 90.55GHz (S/B 14dB min). 2) Gain Flatness was 1.42dB peak-topeak, S/B 1.0 dB max. 3) Overall Gain was 55.34dB, S/B 53 +/-1.0dB. No system impact. Use-As-Is.	Awaiting NASA approval	Pines
At METSAT Signal Processor (Shorted wire on backplane)	13316	1331670-2	F04	Display on AASPTF was "FAIL 000", S/B "PASS". Wire from J310-64 to J301-21 shorted to post on J304-43.	Awalting rework/retest.	Nieto
A1 Signal Processor 1331670-2 (Faulty resistors)	13316	70-2	F04	Digital A Temperature No. 15 readout was 32767, S/B 28259 to 32513. Digital A Temperature No. 33 readout was 24858, S/B 28259 to 32513. R34 on F33 and R35 on F28 found suspect.	Troubleshooting/analysis underway	Nieto
A1 Signal Processor (Cable and CCA plugged 1331670-2 in wrong way)	13316	170-2	F05	5V supply dropped to 2.7V. P1 of Scan Drive Interface cable and Motor Driver CCA plugged in the wrong way.	Rework/retest completed: Need final F/AR	Nieto
A1 Drive Assembly 1333640-1	13336	140-1	F14	Current waveform commutation spikes above- limits.	Troubleshooting/analysis underway	Alvarez
A1 Rotating Assembiles (Inadequate lube on 1333 bearings)	1333	1333647-1	F11, F12	Two of four units falled starting torque test at -10 C. Inadequate bearing lubrication due to repeated rinsing. Plan developed at Ball for lubrication of new bearing sets and relube of those removed from systems.	Awaiting NASA approval	Alvarez
A2 Drive Assembly 1333	1333	1333650-1	F05	Motor supply current exceeded spec. at both start- up and 500mVDC. Measured 51mADC and 52 mADC (S/B 50 mADC max). Motor returned to Vernitron.	Troubleshooting/analysis underway	Alvarez

Alvarez Alvarez Alvarez Alvarez Alvarez Pines Pines Pines Pines Pines Pines P Troubleshooting/analysis Troubleshooting/analysis Awaiting NASA approval Awaiting NASA approval Troubleshooting/analysis Troubleshooting/analysis Awalting NASA approval Awaiting NASA approval Awaiting NASA approval Awaiting NASA approval. Need final draft STATUS underway underway underway underway After X-axls vibe, Channel 7 NEdeltaT was 0.447, dropped from 16200 to 11200. Cause isolated to Drive assembly supply current above spec. at -10 During the transition from +25C to -12C (T/C # 1), the Channel 8 radiometric counts decreased from Motor would not rotate. Hall-Effect devices found C. Measured 51mADC (S/B 50 mADC max). No Channel 7 NEdeltaT was between .45K and .65K Motor would not turn on. Did not rotate in CW or Output power stability variation of 1.2 dB plus .5 dB allowance for aging exceeds spec of +/- 1.5 exhibited reduced output of 10 dBM. Previously Thermistor read 28 VDC, S/B 3.91 to 4.77 VDC. During post-rework confidence test, oscillator ~ 16,000 to ~ 8000. Cause Isolated to CH 8 During CS02 EMI testing, channel 15 counts Connector leads to pins #15 and #21 were Soft clicking noise heard as motor rotated. (S/B<0.25, Metal shavings in waveguide, from A1-202) broken off of motor board. MAI revised. DESCRIPTION rom A1-202) faulty GDO. Gunn diode shorted. measured 11.8 dBM. (Litton) system impact. Use As is. CCW directions. from A1-202) (S/B .25 max) dB. (Litton) mlswired. rom A1-105) (Removed (Removed (Removed SERIAL 85022 85074 85022 85033 85096 FM2 Š F05 **9** 505 F06 509 1336610-10 1336610-5 1336610-7 1336610-3 1336610 1333650-1 1333650-1 1333660-1 1333660-1 1333660-1 1336610 PART Š (Thermistor out-of-spec; (Drive assembly supply (Motor would not rotate) (Output power stability (Channel 7 NEdeltaT (Motor clicking noise) (Channel 6 N.F. and Channel 7 NEdeltaT (Faulty Gunn Dlode) connector miswired) current above spec.) A2 Drive Assembly A2 Drive Assembly Stable Oscillator DRO, Channel 7 DRO, Channel 8 FAILED ITEM Stable Oscillator Stable Oscillator DRO, Channel 7 Compensator Compensator Compensator (Low output) out-of-spec) anomalles) degraded) 12/26/98 11/19/98 7/21/98 6/29/98 4/17/98 8/2/8 3/26/98 4/10/98 2/15/99 7/7/98 7/14/98 **POP** F/AR NO. 106 133 178 078 072 5 99 5 186 167 790

STATUS OF OPEN F/ARS

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IPT	Alvarez	Pines	Pines	Pines	Pines	Pines	Pines	Pines	Pines	Pines
STATUS	Analysis of removed bearings in progress.	Awaiting NASA approval	Troubleshooting/analysis underway	Troubleshooting/analysis underway	Awaiting NASA approval	Awaiting NASA approval	Awaiting NASA approval	Awatting NASA approval	Awaiting NASA approval	Troubleshooting/analysis underway
DESCRIPTION	Barden examination of bearings removed from A2 drive assembly(F02) revealed contamination. Post vibration sine sweep anomaly caused by cracks in reflector bond area (See F/AR 160), not drive assy/bearings.	V(tune) changed by more than 5V+/-1V. (Litton)	Foreign material observed inside wavegulde.	During T/C, broke lock at +60 C. +15V supply dropped to +5V. Isolated cause to shorted EMI/RFI filter. During T/C, exhibited random spurs about main carrier signal. VCGDO and faceplate EMI filters replaced. Problem still exists.	PLO tost lock when baseplate temperature was between 32 C and 34.5 C. Unit retuned (R1, R2 reselected). Deadband resolved.	During T/C, multiple spurs in main carrier signal. After both units were temperature cycled (before and after retuning) carrier signals showed no spurs.	DRO sweep frequency center was 6.899 GHz, S/B 6.8748 GHz, DRO signal would not lock. Loose screw found on DRO cover.	PLO carrier lock signal was missing and the DRO sweep signal shifted. DRO opened and resonator puck found loose from DRO CCA.	During LPT, after Z-axis vibe, did not lock. Current limit in test setup for -15V inadvertently set to 80mA, S/B 100 mA. No failure of flight hardware.	PLO ouput power dropped at high temp (+44C).
SERIAL NO.	Removed from A2 (105)	79032	79039	F05	F06	F07, F08	F09	F10	F11	F12
PART NO.	1338266-1	1348351-1	1348351-1	1348360-1	1348360-1	1348360-1	1348360-1	1348360-1	1348360-1	1348360-1
FAILED ITEM	Bearing Assembly	57 GHz VCGDO (Gunn diode replaced)	VCGDO (Foreign material in waveguide)	PLO Assembly (Lost lock at +60 C: EMI/RFI filter shorted)	PLO Assembly (Lost lock between 32 C & 34.5 C)	PLO Assembly (Spurs in main carrier signal)	PLO Assembly (Loose screw on DRO cover)	PLO Assembly (Resonator puck bond failure)	PLO Assembly (Test setup current limit set low)	PLO Assembly
DOF	9/16/98	4/11/98	7/18/98	6/15/98	6/16/98	8/20/98	10/20/98	10/26/98	2/2/99	2/9/99
F/AR NO.	152	075	104	092	093	139	158	159	183	185

Pines Neto P Pending calibration completion Pre-ATP test Incorporated: Awaiting NASA approval: Troubleshooting/analysis Awaiting NASA approval Need final draft Need final draft STATUS underway adjusting waveguide attenuator. NPS reduced to .03. 0.08 max). LO output power to mixer reduced by Channel 8 noise figure failed at +44 C. Could not kohms (S/B>1Mohm). Isolated to faulty U2; base-Output voltage of MMIC Amplifier (U1) measured Channel 6 Noise Power Stability was 0.146 (S/B 4.78 V, S/B 4 +/- 0.5V. Spec. for Vd changed to During continuity test of C21, resistance was 7.5 +14V min. Cause isolated to reverse-biasing of Channels 3, 5 and 8 failed Noise Power Stability Channel 6 noise figure was 5.96 dB (S/B 5.2 dB C22 and C24 measured 3.94Kohms, 260 ohms Low resistance across C22. Cause isolated to (NPS). The readings were .23, .107 and .108, PRT RT19 reads open; PRT RT22 is shorted. During ATP, PLO lock detect was +11V, S/B During continuity test, resistance across C21, DRO signal shifted 10 MHz to right of center >1Mohm). U2 found defective; base-emitter faulty U2. Analysis indicated ESD damage. and 2.8 Kohms (S/B >1Mohm, >500 ohms, frequency. DRO cover found reversed 180 shorted; inadequate emitter well coverage. max). Fault isolated to DRO. After DRO C8 on Loop-Amp CCA. Design changes emitter shorted; inadequate emitter well DESCRIPTION S/B .12, .08 and .08 maxlmum. be repeated. DRO replaced. replacement, NF passed. Implemented. 3.5V to 5.5V. coverage. degrees. SERIAL F02 F02 F10 F13 F14 Š. F10 F02 F03 503 된 F06 1356429-1 1356429-1 1356429-1 1348500-1 1356409-1 1356409-1 1348500-1 1348500-1 1348500-1 1356409-1 1348400-1 PART Ö (PLO lock detect below spec, C8 reverse-blased) (PRT RT19 open; PRT (Noise power stability (DRO cover reversed) (Noise power stability (Vd of U1 out-of-limit) (Ch.8 N.F. anomaly) FAILED ITEM PLL Assembly (Faulty U2) A1-1 Receiver A1-1 Receiver **DRO Assembly** PLL Assembly RT22 shorted) A1-2 Receiver A1-2 Receiver A1-1 Receiver PLL Assembly A1-2 Receiver above spec.) above spec.) PLL Assembly (Faulty U2) (Faulty U2) 9/17/98 11/19/98 8/14/98 8/25/98 7/15/98 4/1/98 11/2/98 3/19/98 5/28/98 1/7/99 8/8/8 DOF F/AR NO. 4 920 98 103 <u>23</u> 89 8 34 ₹ 087 9

STATUS OF OPEN F/ARS

AMSU-A

F/AR NO.	DOF	FAILED ITEM	PART NO.	SERIAL NO.	DESCRIPTION	STATUS	IPT
166	11/17/98	A1-1 Receiver (PLO loses lock)	1356429-1	F04	During receiver level adjustment of PLO power, PLO S/N F06 lost lock after 10 to 15 minutes.	Troubleshooting/analysis underway	Pines
060	6/3/98	A2 Receiver (Channel 1 noise above spec.)	1356441-1	F02	Channel 1 noise figure read 4.6 dB (S/B 4.5 dB max). Corrected by increasing power to mixer: Reduced N.F. to 4.26 dB. No impact at receiver level.	Awaiting NASA approval	Pines
130	7/27/98	A2 Receiver (Faulty PRT)	1356441-1	F03	Resistance of PRT (RT17) measured 2.586kohm, S/B 2.2kohm +/-100ohm.	Troubleshooting/analysis underway	Pines
131	7/28/98	A2 Receiver	1356441-1	F03	During N.F. test of Ch 2, IF power increased 8dB. No change in output (warm load to cold load).	Troubleshooting/analysis underway	Pines
129	7/27/98	Power Relay and Housekeeping CCA (Wrong value resistor[R37)	1356969-1	C/N 002	Voltage Monitor Signal No. 9 measured 4.08V, S/B 2.85 to 3.15V. Value of R37 was incorrect (measured 14.964kohm, S/B 10kohm).	Need final draft	Nieto
260	7/2/98	V-Band PLO (TRW) (EMI test anomalles)	857270-001	005	Emission levels exceeded spec during RE02 narrowband and CE03 narrowband. No system impact. TRW to add conductive epoxy around worst leakage areas. (TRW)	Awaiting NASA approval	Pines

AMSU-A QUALITY ASSURANCE WEEKLY REPORT FOR WEEK ENDING 3-10-99

Accomplishments Last Week

- 1. Continuing to support shipping coordination meetings for the A1 and A2 106 Units.
- 2. Supported the TRR's and FRB's as scheduled.

Critical Issues

None.

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AMSU-A INSTRUMENT STATUS

INSTRUMENT	S/N 202	S/N 105	S/N 106	S/N 107	S/N 108	S/N 109
<u>A1</u>			•			
Machine Subassy					>	In assembly
Antenna Subassy				 >	Antenna range	
System Integration				Eng CPT		
PER			>			
Completed Env. Test & Calibraton Tasks	·		Baseline CPT			
Scheduled Env. Test & Calibraton Tasks						
Final CPT		 				
PSR	->	Pre Ship				
Shipping Configuration	Shipped		·			
						<u> </u>

AMSU-A INSTRUMENT STATUS

INSTRUMENT	S/N 202	S/N 105	S/N 106	S/N 107	S/N 108	S/N 109
A2						
Machine Subassy						->
Antenna Subassy						Antenna Assy Integration
System Integration				Eng CPT	Initial Assembly	
PER			\rightarrow			
Completed Env. Test & Calibraton Tasks			EMI, Thermal Cycling, Qual Level Vib. (failed)			
Scheduled Env. Test & Calibraton Tasks			Vibration anomaly (reflector / antenna drive) investigaton			-
Final CPT		->				
PSR	,	PreShip				
Shipping Configuration	Shipped					

F/AR NO.	DOF	FAILED ITEM	PART NO.	SERIAL NO.	DESCRIPTION	STATUS	IPT
160	10/27/98	METSAT/AMSU-A2 (Resonant frequency change in reflector/motor assy)	1331200-2	105	Post-vibration Bode plot for reflector/motor assy. showed a new peak at about 122 HZ and the original resonant frequency peak had shifted from 223.34 HZ to 204.87 HZ. Cracks in bonded reflector joints.	Awaiting NASA approval	Alvarez
1 64	11/9/98	METSAT/AMSU-A2 (Faulty PRT)	1331200-2	106	RF Mux PRT read 52.25 C, S/B 25+/-5 C. Cause isolated to faulty PRT.	Troubleshooting/analysis underway	Nieto
179	12/22/98	METSAT/AMSU-A2 (Reflector's main resonance shifted)	1331200-2	106	Post Z-axis vibe sine sweep showed 20 Hz shift in first natural frequency. Reflector's main resonance response has changed from 223Hz to 214Hz. R-D converter replaced / SAT resistors changed (as risk mitigation with no evidence of failure).	Troubleshooting/analysis underway	Alvarez
188	2/22/99	METSAT/AMSU-A2 (Open PRT)	1331200-2	107	PRT 3 (RF Diplexer) open. Dig A Temp reading was 32767, S/B ~18660.	Troubleshooting/analysis underway	Nieto
171	12/5/98	METSAT/AMSU-A1 (New resonance at ~120 Hz)	1331720-2	105	Post X-axis vibration low level sine sweep showed resonance at ~120Hz that was not seen at pre-vibe. Finite element vibration model predicted this resonant frequency.	Awaiting NASA approval	Alvarez
96	2/17/99	METSAT/AMSU-A1 (Out-of-spec linearity)	1331720-2	105	Out-of-spec calculated linearity on Channels 6, 7, 9 thru 14. Waiver request (CCR 8127) submitted.	Awaiting NASA approval	Paliwoda
182	1/21/99	METSAT/AMSU-A1	1331720-2	106	Measurement from TB3-E1 to TB3-E2 for PRT RT3 read open.	Troubleshooting/analysis underway	Nieto
184	2/2/99	METSAT/AMSU-A1 (Resistor out-of-spec.)	1331720-2	106	Turn-on inrush current for main load bus (1st current spike) below normal. DC-DC Converter(FM7) replaced. R600 resistor was out-of-spec.	Troubleshooting/analysis underway at FEI	Nieto
189	3/1/99	METSAT/AMSU-A1 (Short at connector)	1331720-2	106	Full Print Ch. 12 counts ~9000, S/B 16000- 17000. Metal sliver shorting at semi-rigid connector connected to J552.	Troubleshooting/analysis underway	Nieto
170	11/25/98	METSAT/AMSU-A1 (CCA connectors inserted upside down)	1331720-2	107	During integration, +5V and -15V scan drive power supplies went into current limit. Found J403 and J404 connectors for motor driver CCAs installed upside down in upper card cage.	Troubleshooting/analysis underway	Nieto
187	2/19/99	METSAT/AMSU-A1 (Missing capacitor in DRO)	1331720-2	107	Ch. 5 IF output power was -34.38 dBm (S/B -27+/1 dBm). Capacitor C5 missing in DRO voltage shutdown circuit.	Troubleshooting/anatysis underway	Lambert

Lambert Lambert Lambert Lambert Aivarez Alvarez Alvarez Nieto PT Troubleshooting/analysis Awaiting NASA approval. Awaiting NASA approval Need final draft STATUS underway 1) Mixer LO to RF isolation was 27.2dB, S/B 30db retuned at Spacek. Now meets all requirements, Computed means for down track angle on beam secondary reflector housing of the EOS/AMSUload condition not seen in actual operation. FRB Bearnwidth at Beam Position 15 (crosstrack) for Channel 15 was 3.73 degrees, S/B 2.97 to 3.63 Overall gain measured 66.59dB, S/B 65±1.0dB. During thermal vacuum at +60°C, the Module 4 Reflector(P/N 1355835-1, S/N 6) replaced with resistor value too low. High temperature, max min. 2) Overall Gain was 66.47dB, S/B 65 +/-Gain sensitivity measured 1.50dB, S/B 1.4dB S/N 7. Alignment measurements within spec. 1) Noise Figure measured 3.3dB (S/B 3.2dB max) at L.O. power setting of +11.5dBm. 2) outputs lost regulation. Current limiting SAT max. No longer a requirement at this level. SDAR withdrawn. N.F. was 3.6dB, S/B 3.5dB max. LO to RF isolation was 25.4dB, S/B 30dB min. Unit Cracks in corner braze joints observed on Range expanded for setting L.O. power 1.0dB. No system impact. Use-As-Is. positions 1 & 15 slightly above spec. A2 (S/N 202). Housing redesigned DESCRIPTION degrees. Feedhorn replaced. SDARs approved: Use-As-Is. approved "Use As Is". (FEI) SERIAL 7A32 **7A43** 7A24 7A31 FM5 Ö ۲ F03 F03 1331562-12 1331562-13 1331562-14 1331562-11 PART NO. 1331210-3 1331400-2 1356010 1333382 (Out-of-spec condition) (Out-of-spec condition) (Out-of-spec condition) (Out-of-spec condition) A2 Antenna Assembly A1 Antenna Assembly (Lost regulation; SAT resistor value too low) (Burrs/debris inside Secondary Reflector DC-DC Converter **FAILED ITEM** Mixer-Amplifier Mixer-Amplifier Mixer-Amplifler Mixer-Amplifler feedhorn) Housing (Cracked) 86/08/9 10/29/98 86/06/9 8/27/98 9/1/98 5/27/98 6/18/98 6/25/98 86/02/9 **50** F/AR NO 980 960 119 **4**4 112 960 161 094

STATUS OF OPEN F/ARS

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F/AR NO.	DOF	FAILED ITEM	PART NO.	SERIAL NO.	DESCRIPTION	STATUS	lPΤ
120	86/30/98	Mixer-Amplifler (Out-of-spec condition)	1331562-14	7A34	1) Gain Flatness was 0.55dB peak-to-peak, S/B 0.05 dB max. 2) Mixer LO to RF isolation was 25.5dB, S/B 30db min. 3) N.F. was 3.3dB (S/B 3.2dB max) at L.O. power setting of +11.5dBm. 4) Overall gain was 66.32dB, S/B 65±1.0dB. Use-As-Is.	Awaiting NASA approval.	Lambert
145	8/27/98 8/31/98 9/1/98	Mixer-Amplifier (Out-of-spec condition)	1331562-14	7A44	1) N.F. was 3.85dB (S/B 3.8dB max) at L.O. power setting of +11.5dBm. 2) Mixer LO to RF isolation was 28.5dB, S/B 30db min. 3) Gain Flatness was 0.52dB peak-to-peak, S/B 0.5 dB max. 4) Overall Gain was 66.41dB, S/B 65 +/-1.0dB. Unit retuned.	Awaiting NASA approval	Lambert
172	12/1/98	Mixer-Amplifier (Out-of-spec condition)	1331562-14	7A54	Gain Flatness was 0.52 dB peak-to-peak, S/B 0.5 dB max. No system Impact. "Use-As-Is".	Awaiting NASA approval	Lambert
073	4/14/98	Mixer/Amplifier (Output low)	1331562-16	7A16	During noise figure test of a suspect DRO, mixer output was below -30dBM (S/B -27dBm +/-1dBm).	Awaiting NASA approval	Lambert
148	8/27/98 9/1/98	Mixer-Amplifier (Out-of-spec condition)	1331562-17	7A47	1) Mixer LO to RF isolation was 26.5dB, S/B 30db min. 2) Overall Gain was 66.40dB, S/B 65 +/- 1.0dB. No system impact. Use-As-Is.	Awaiting NASA approval	Lambert
173	12/1/98	Mixer-Amplifier (Out-of-spec condition)	1331562-18	7A58	Gain Flatness was 0.58 dB peak-to-peak, S/B 0.5 dB max. No system impact. "Use-As-Is".	Awaiting NASA approval	Lambert
176	12/1/98	Mixer-Amplifier (Out-of-spec condition)	1331562-18	7A68	Gain Flatness was 0.62 dB peak-to-peak, S/B 0.5 dB max. No system impact. "Use-As-Is".	Awaiting NASA approval	Lambert
177	12/1/98	Mixer-Amplifier (Out-of-spec condition)	1331562-19	7A69	1. LO to RF isolation measured 25.3 dB with +8.5 dBm LO power, S/B 27.5 dB min. 2. During input voltage and current test, current measured 51.1 mA @ +21□C, 50.9 mA @ +30□C and 51.0 mA @ +60□C, S/B 45 mA max. 3. Gain Flatness was 0.68 dB peak-to-peak, S/B 0.5 dB max. No system impact. "Use-As-Is".	Awaiting NASA approval	Lambert
174	12/1/98	Mixer-Amplifler (Out-of-spec condition)	1331562-19	7A59	1. During input voltage and current test, current measured 50.8 mA @ +21□C, 50.6 mA @ -30□C and 51.0 mA @ +60□C, S/B 45 mA max. 2. Gain Flatness was 0.54 dB peak-to-peak, S/B 0.5 dB max. 3. Total Delta Gain measures 1.49 dB, S/B 1.4 dB max. No system impact. "Use-As-Is".	Awaiting NASA approval	Lambert

F/AR NO.	DOF	FAILED ITEM	PART NO.	SERIAL NO.	DESCRIPTION	STATUS	IPT
125	86/06/9	Mixer-Amplifier (Out-of-spec condition)	1331562-20	7A40	1) Gain Flatness was between 1.1 and 1.5dB, S/B 1.0dB peak-to-peak. 2) Gain Flatness was 1.38dB peak-to-peak, S/B 1.00dB max. 3) Mixer LO to RF isolation was 22.5dB, S/B 30db min. 4) N.F. was 3.96dB (S/B 3.8dB max). Use-As-Is.	Awaiting NASA approval.	Lambert
175	12/1/98	Mixer-Amplifier (Out-of-spec condition)	1331562-20	7A60	Gain Flatness was 1.15 dB peak-to-peak, S/B 1.0 dB max. No system impact. "Use-As-Is".	Awaiting NASA approval	Lambert
151	8/27/98 8/31/98 9/1/98	Mixer-Amplifier (Out-of-spec condition)	1331562-20	7A50	1) RF return loss was 11.0dB @ 87.45GHz, 13.5dB @ 89.00GHz, 11.4dB @ 90.55GHz (S/B 14dB min). 2) Gain Flatness was 1.42dB peak-topeak, S/B 1.0 dB max. 3) Overall Gain was 55.34dB, S/B 53 +/-1.0dB. No system impact. Use-As-Is.	Awaiting NASA approval	Lambert
156	86/30/68	A1 METSAT Signal Processor (Shorted wire on backplane)	1331670-2	F04	Display on AASPTF was "FAIL 000", S/B "PASS". Wire from J310-64 to J301-21 shorted to post on J304-43.	Awaiting rework/retest.	Nieto
162	10/29/98	A1 Signal Processor (Faulty resistors)	1331670-2	F04	Digital A Temperature No. 15 readout was 32767, S/B 28259 to 32513. Digital A Temperature No. 33 readout was 24858, S/B 28259 to 32513. R34 on F33 and R35 on F28 found suspect.	Troubleshooting/analysis underway	Nieto
155	9/29/98	A1 Signal Processor (Cable and CCA plugged in wrong way)	1331670-2	F05	5V supply dropped to 2.7V. P1 of Scan Drive Interface cable and Motor Driver CCA plugged in the wrong way.	Rework/retest completed: Need final F/AR	Nieto
169	11/19/98	A1 Drive Assembly	1333640-1	F14	Current waveform commutation spikes above- limits.	Troubleshooting/analysls underway	Alvarez
048	12/1/97	A1 Rotating Assemblies (Inadequate lube on bearings)	1333647-1	F11, F12	Two of four units failed starting torque test at -10 C. Inadequate bearing lubrication due to repeated rinsing. Plan developed at Ball for lubrication of new bearing sets and relube of those removed from systems.	Awaiting NASA approval	Alvarez
720	4/15/98	A2 Drive Assembly	1333650-1	F05	Motor supply current exceeded spec. at both start up and 500mVDC. Measured 51mADC and 52 mADC (S/B 50 mADC max). Motor returned to Vernitron.	Troubleshooting/analysis underway	Alvarez
186	2/15/99	A2 Drive Assembly	1333650-1	F05	Motor would not turn on. Did not rotate in CW or CCW directions.	Troubleshooting/analysis underway	Alvarez

Alvarez Lambert Lambert Lambert Lambert Alvarez Alvarez Lambert Lambert Lambert Alvarez IPT Analysis of removed bearings Troubleshooting/analysis Troubleshooting/analysis Troubleshooting/analysis Awaiting NASA approval Need final draft STATUS in progress. underway underway underway Drive assembly supply current above spec. at -10 During the transition from +25C to -12C (T/C # 1), the Channel 8 radiometric counts decreased from After X-axis vibe, Channel 7 NEdeltaT was 0.447, Motor would not rotate. Hall-Effect devices found C. Measured 51mADC (S/B 50 mADC max). No dropped from 16200 to 11200. Cause isolated to Channel 7 NEdeltaT was between .45K and .65K A2 drive assembly(F02) revealed contamination. cracks in reflector bond area (See F/AR 160), not Output power stability variation of 1.2 dB plus .5 exhibited reduced output of 10 dBM. Previously V(tune) changed by more than 5V+/-1V. (Litton) dB allowance for aging exceeds spec of +/- 1.5 Barden examination of bearings removed from Post vibration sine sweep anomaly caused by During post-rework confidence test, oscillator ~ 16,000 to ~ 8000. Cause isolated to CH 8 During CS02 EMI testing, channel 15 counts Soft clicking nolse heard as motor rotated. S/B<0.25. Metal shavings in waveguide. broken off of motor board. MAI revised. DESCRIPTION rom A1-202) faulty GDO. Gunn diode shorted. measured 11.8 dBM. (Litton) system impact. Use As Is. drive assy/bearings. from A1-202) (S/B .25 max) dB. (Litton) rom A1-105) rom A1-202) (Removed (Removed (Removed SERIAL Removed from A2 79032 85096 85074 85033 (105)85022 FM2 85022 Š F08 505 9 9 PART NO. 1336610-10 1336610-7 1338266-1 1333666-1 1348351-1 1336610-3 1336610-5 1333650-1 1333660-1 1333660-1 1336610 1336610 (Motor would not rotate) (Drive assembly supply (Output power stability (Gunn diode replaced) A2 Drive Assembly (Motor clicking noise) Channel 7 NEdeltaT current above spec.) Channel 6 N.F. and Channel 7 NEdeltaT Faulty Gunn Diode) FAILED ITEM Bearing Assembly DRO, Channel 8 DRO, Channel 7 57 GHz VCGDO Stable Oscillator DRO, Channel 7 Stable Oscillator Stable Oscillator Compensator Compensator (Low output) ont-of-spec) anomalies) degraded) 11/19/98 12/26/98 3/26/98 4/10/98 7/14/98 6/29/98 4/11/98 4/11/98 7/21/98 DOF 9/16/98 8/2/8 F/AR NO. 075 072 178 167 995 870 8 533 152 067 힏

STATUS OF OPEN F/ARS

AMSU-A

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DOF	FAILED ITEM	PART NO.	SERIAL NO.	DESCRIPTION	STATUS	ΙΡΊ
7/18/98	VCGDO (Foreign material in waveguide)	1348351-1	79039	Foreign material observed inside waveguide.	Troubleshooting/analysis underway	Lambert
6/15/98	PLO Assembly (Lost lock at +60 C: EMI/RFI filter shorted)	1348360-1	F05	During T/C, broke lock at +60 C. +15V supply dropped to +5V. Isolated cause to shorted EMI/RFI filter. During T/C, exhibited random spurs about main carrier signal. VCGDO and faceplate EMI filters replaced. Problem still exists.	Troubleshooting/analysis underway	Lambert
6/16/98	PLO Assembly (Lost lock between 32 C & 34.5 C)	1348360-1	F06	PLO lost lock when baseplate temperature was between 32 C and 34.5 C. Unit retuned (R1, R2 reselected). Deadband resolved.	Awaiting NASA approval	Lambert
8/20/98	PLO Assembly (Spurs in main carrier signal)	1348360-1	F07, F08	During T/C, multiple spurs in main carrier signal. After both units were temperature cycled (before and after retuning) carrier signals showed no spurs.	Awaiting NASA approval	Lambert
10/20/98	PLO Assembly (Loose screw on DRO cover)	1348360-1	F09	DRO sweep frequency center was 6.899 GHz, S/B 6.8748 GHz. DRO signal would not lock. Loose screw found on DRO cover.	Awaiting NASA approval	Lambert
10/26/98	PLO Assembly Resonator puck bond failure)	1348360-1	F10	PLO carrier lock signal was missing and the DRO sweep signal shifted. DRO opened and resonator puck found loose from DRO CCA.	Awaiting NASA approval	Lambert
2/2/99	PLO Assembly (Test setup current limit set low)	1348360-1	F1	During LPT, after Z-axis vibe, did not lock. Current limit in test setup for -15V inadvertently set to 80mA, S/B 100 mA. No failure of flight hardware.	Awaiting NASA approval	Lambert
2/9/99	PLO Assembly	1348360-1	F12	PLO ouput power dropped at high temp (+44C).	Troubleshooting/analysis underway	Lambert
11/2/98	DRO Assembly (DRO cover reversed)	1348400-1	F10	DRO signal shifted 10 MHz to right of center frequency. DRO cover found reversed 180 degrees.	Awaiting NASA approval	Lambert
3/19/98	PLL Assembly (Faulty U2)	1348500-1.	F06	Low resistance across C22. Cause Isolated to faulty U2. Analysis indicated ESD damage.	Awaiting NASA approval: Pending calibration completion	Lambert
5/28/98	PLL Assembly (Faulty U2)	1348500-1	F10	During continuity test of C21, resistance was 7.5 kohms (S/B>1Mohm). Isolated to faulty U2; base-emitter shorted; inadequate emitter well coverage.	Awaiting NASA approval	Lambert

F/AR NO.	DOF	FAILED ITEM	PART NO.	SERIAL NO.	DESCRIPTION	STATUS	IPT
103	7/15/98	PLL Assembly (Faulty U2)	1348500-1	F13	During continuity test, resistance across C21, C22 and C24 measured 3.94Kohms, 260 ohms and 2.8 Kohms (S/B > 1 Mohm, > 500 ohms, > 1 Mohm). U2 found defective; base-emitter shorted; inadequate emitter well coverage.	Awaiting NASA approval	Lambert
180	1/7/99	PLL Assembly (Vd of U1 out-of-limit)	1348500-1	F14	Output voltage of MMIC Amplifier (U1) measured 4.78 V, S/B 4 +/- 0.5V. Spec. for Vd changed to 3.5V to 5.5V.	Awaiting NASA approval	Lambert
134	86/8/8	A1-2 Receiver (PRT RT19 open; PRT RT22 shorted)	1356409-1	F02	PRT RT19 reads open; PRT RT22 is shorted. Both PRTs replaced.	Need final draft	Nieto
153	9/11/98	A1-2 Receiver (Noise power stability above spec.)	1356409-1	F03	Channels 3, 5 and 8 falled Noise Power Stability (NPS). The readings were .23, .107 and .108, S/B .12, .08 and .08 maximum.	Pre-ATP test incorporated: Need final draft	Lambert
168	11/19/98	A1-2 Receiver	1356409-1	F03	Channel 8 noise figure failed at +44 C. Could not be repeated. DRO replaced.	Troubleshooting/analysis underway	Lambert
070	4/1/98	A1-1 Receiver	1356429-1	F04	Channel 6 noise figure was 5.96 dB (S/B 5.2 dB max). Fault isolated to DRO. After DRO replacement, NF passed.	Awaiting NASA approval	Lambert
136	8/14/98	A1-1 Receiver (Noise power stability above spec.)	1356429-1	F02	Channel 6 Noise Power Stability was 0.146 (S/B 0.08 max). LO output power to mixer reduced by adjusting waveguide attenuator. NPS reduced to 03.	Awaiting NASA approval	Lambert
140	8/25/98	A1-1 Receiver (PLO lock detect below spec. C8 reverse-blased)	1356429-1	F02	During ATP, PLO lock detect was +11V, S/B +14V min. Cause isolated to reverse-blasing of C8 on Loop-Amp CCA. Design changes implemented.	Awaiting NASA approval	Lambert
166	11/17/98	A1-1 Receiver (PLO loses lock)	1356429-1	F04	During receiver level adjustment of PLO power, PLO S/N F06 lost lock after 10 to 15 minutes.	Troubleshooting/analysts underway	Lambert
192	3/9/99	A1-1 Receiver (PLO loses lock at +5 C)	1356429-1	F05	During first temp cycle at +5.5 C, PLO lost lock. Verified by checkout with DC-DC eng model.	Troubleshooting/analysis underway	Lambert
060	86/2/9	A2 Receiver (Channel 1 noise above spec.)	1356441-1	F02	Channel 1 noise figure read 4.6 dB (S/B 4.5 dB max). Corrected by increasing power to mixer: Reduced N.F. to 4.26 dB. No impact at receiver level.		Lambert
130	7/27/98	A2 Receiver (Faulty PRT)	1356441-1	F03	Resistance of PRT (RT17) measured 2.586kohm, S/B 2.2kohm +/-100ohm.	Troubleshooting/analysis underway	Lambert

F/AR NO.	DOF	FAILED ITEM	PART NO.	SERIAL NO.	DESCRIPTION	STATUS	ΙĐΙ
131	7/28/98	A2 Receiver	1356441-1	F03	During N.F. test of Ch 2, IF power increased 8dB. No change in output (warm load to cold load).	Troubleshooting/analysis underway	Lambert
129	7/27/98	Power Relay and Housekeeping CCA (Wrong value resistor[R37)	1356969-1	C/N 002	Voltage Monitor Signal No. 9 measured 4.08V, S/B 2.85 to 3.15V. Value of R37 was incorrect (measured 14.964kohm, S/B 10kohm).	Need final draft	Nieto
260	7/2/98	V-Band PLO (TRW) (EMI test anomalies)	857270-001	002	Emission levels exceeded spec during RE02 narrowband and CE03 narrowband. No system impact. TRW to add conductive epoxy around worst leakage areas. (TRW)	Awaiting NASA approval	Lambert

AMSU-A QUALITY ASSURANCE WEEKLY REPORT FOR WEEK ENDING 3-24-99

Accomplishments Last Week

1. QA and DA personnel are heavily involved with the preparation of the A1 & A2 105 Units for installation into the shipping containers. With the 105 units being the first METSAT Units, some snags and problems, including the wrong nut plate installed in the Container by Zero Corporation, were encountered.

Zero admitted they did not physically verify the thread configuration of the nut plates. Aerojet source inspection verified the installation of the nutplates but did not check the thread size. A SCAR was issued to Zero and the QE will revise the Source Inspection Instruction to verify the nut plate threads are compliant to the drawing.

- 2. Attended the TRR for the A1-106 EMI Testing scheduled to start this week.
- 3. Continuing to conduct Shipping Coordination Meetings twice a week to assure that the hardware and supporting documentation required for the PSR and DD250 are completed as required.

Critical Issues

None

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AMSU-A INSTRUMENT STATUS

S/N 109		In assembly				-					
S/N 108		>	Antenna range								
S/N 107			>	Eng CPT							
S/N 106							E				··
S/N 105 S/N 106 S/N								->	Pre Ship		
S/N 202						·			→	Shipped	
INSTRUMENT	A1	Machine Subassy	Antenna Subassy	System Integration	PER	Completed Env. Test & Calibraton Tasks	Scheduled Env. Test & Calibraton Tasks	Final CPT	PSR	Shipping Configuration	

INSTRUMENT	S/N 202	S/N 105	S/N 106	S/N 107	S/N 108	S/N 109
<u>A2</u>						
Machine Subassy			-			\rightarrow
Antenna Subassy				•-	>	Antenna Assy Integration
System Integration				>	Integration Testing	
PER				Final Assembly		
Completed Env. Test & Calibraton Tasks			EMI, Thermal Cycling, Qual Level Vib. (falled)			
Scheduled Env. Test & Calibraton Tasks			Retest			
Final CPT		 				
PSR	-	PreShip				
Shipping Configuration	Shipped					

	FAILED ITEM	PART NO.	SERIAL NO.	DESCRIPTION	STATUS	IPT
ME (Res thange	METSAT/AMSU-A2 (Resonant frequency change in reflector/motor assy)	1331200-2	105	Post-vibration Bode plot for reflector/motor assy. showed a new peak at about 122 HZ and the original resonant frequency peak had shifted from 223.34 HZ to 204.87 HZ. Cracks in bonded reflector joints.	Awaiting NASA approval	Alvarez
Ž	METSAT/AMSU-A2 (Faulty PRT)	1331200-2	106	RF Mux PRT read 52.25 C, S/B 25+/-5 C. Cause isolated to faulty PRT.	Troubleshooting/analysis underway	Nieto
2 -	METSAT/AMSU-A2 (Reflector's main resonance shifted)	1331200-2	106	Post Z-axis vibe sine sweep showed 20 Hz shift in first natural frequency. Reflector's main resonance response has changed from 223Hz to 214Hz. R-D converter replaced / SAT resistors changed (as risk mitigation with no evidence of fallure).	Troubleshooting/analysis underway	Alvarez
-	METSAT/AMSU-A2 (Open PRT)	1331200-2	107	PRT 3 (RF Diplexer) open. Dig A Temp reading was 32767, S/B ~18660.	Troubleshooting/analysis underway	Nieto
- 5	METSAT/AMSU-A1 (Out-of-spec linearity)	1331720-2	105	Out-of-spec calculated linearity on Channels 6, 7, 9 thru 14. Waiver request (CCR 8127) submitted.	Awaiting NASA approval	Paliwoda
	METSAT/AMSU-A1	1331720-2	106	Measurement from TB3-E1 to TB3-E2 for PRT RT3 read open.	Troubleshooting/analysis underway	Nieto
	METSAT/AMSU-A1 (Resistor out-of-spec.)	1331720-2	106	Turn-on inrush current for main load bus (1st current spike) below normal. DC-DC Converter(FMT) replaced. R600 resistor was out-of-spec.	Troubleshooting/analysis underway at FEI	Nieto
	METSAT/AMSU-A1 (Short at connector)	1331720-2	106	Full Print Ch. 12 counts ~9000, S/B 16000-17000. Metal sliver shorting at semi-rigid connector connected to J552.	Troubleshooting/analysis underway	Nieto
9	METSAT/AMSU-A1 (CCA connectors inserted upside down)	1331720-2	107	During integration, +5V and -15V scan drive power supplies went into current limit. Found J403 and J404 connectors for motor driver CCAs installed upside down in upper card cage.	Troubleshooting/analysis underway	Nieto
	METSAT/AMSU-A1 (Missing capacitor in DRO)	1331720-2	107	Ch. 5 IF output power was -34.38 dBm (S/B -27+/-1 dBm). Capacitor C5 missing in DRO voltage shutdown circuit.	Troubleshooting/analysis underway	Lambert

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IPT	Nieto	Alvarez	Lambert	Lambert	Lambert	Lambert	Lambert
STATUS	Need final draft	Troubleshooting/analysis underway	Awaiting NASA approval	Awaiting NASA approval.	Awaiting NASA approval	Awaiting NASA approval.	Awaiting NASA approval.
DESCRIPTION	During thermal vacuum at +60°C, the Module 4 outputs lost regulation. Current limiting SAT resistor value too low. High temperature, max load condition not seen in actual operation. FRB approved "Use As Is". (FEI)	Beamwidth at Beam Position 15 (crosstrack) for Channel 15 was 3.73 degrees, S/B 2.97 to 3.63 degrees. Feedhorn replaced.	N.F. was 3.6dB, S/B 3.5dB max. LO to RF isolation was 25.4dB, S/B 30dB min. Unit retuned at Spacek. Now meets all requirements. Range expanded for setting L.O. power	1) Noise Figure measured 3.3dB (S/B 3.2dB max) at L.O. power setting of +11.5dBm. 2) Overall gain measured 66.59dB, S/B 65±1.0dB. SDARs approved: Use-As-Is.	1) Mixer LO to RF isolation was 27.2dB, S/B 30db min. 2) Overall Gain was 66.47dB, S/B 65 +/-1.0dB. No system impact. Use-As-Is.	Gain sensitivity measured 1.50dB, S/B 1.4dB max. No longer a requirement at this level. SDAR withdrawn.	1) Gain Flatness was 0.55dB peak-to-peak, S/B 0.05 dB max. 2) Mixer LO to RF isolation was 25.5dB, S/B 30db min. 3) N.F. was 3.3dB (S/B 3.2dB max) at L.O. power setting of +11.5dBm. 4) Overall gain was 66.32dB, S/B 65±1.0dB. Use-As-Is.
SERIAL NO.	FMS	F03	7A31	7A32	7A43	7A24	7A34
PART NO.	1356010	1331400-2	1331562-11	1331562-12	1331562-13	1331562-14	1331562-14
FAILED ITEM	DC-DC Converter (Lost regulation; SAT resistor value too low).	A1 Antenna Assembly (Burrs/debris inside feedhorn)	Mixer-Ampitifier (Out-of-spec condition)	Mixer-Amplifier (Out-of-spec condition)	Mixer-Amplifier (Out-of-spec condition)	Mixer-Amplifier (Out-of-spec condition)	Mixer-Amplifier (Out-of-spec condition)
DOF	6/25/98	10/29/98	96/30/98	6/30/98	8/27/98 9/1/98	6/30/98	96/30/98
F/AR NO.	984	161	860	119	144	112	120

	į	FAILED ITEM	NO.	NO.	DESCRIPTION	STATUS	ΙΡΤ
145	8/27/98 8/31/98 9/1/98	Mixer-Amplifier (Out-of-spec condition)	1331562-14	7A44	1) N.F. was 3.85dB (S/B 3.8dB max) at L.O. power setting of +11.5dBm. 2) Mixer LO to RF isolation was 28.5dB, S/B 30db min. 3) Gain Flatness was 0.52dB peak-to-peak, S/B 0.5 dB max. 4) Overall Gain was 66.41dB, S/B 65 +/-1.0dB. Unit retuned.	Awaiting NASA approval	Lambert
17.2 1.	12/1/98	Mixer-Amplifier (Out-of-spec condition)	1331562-14	7A54	Gain Flatness was 0.52 dB peak-to-peak, S/B 0.5 dB max. No system impact. "Use-As-Is".	Awaiting NASA approval	Lambert
148 8	8/27/98 9/1/98	Mixer-Amplifier (Out-of-spec condition)	1331562-17	7A47	1) Mixer LO to RF isolation was 26.5dB, S/B 30db min. 2) Overall Gain was 66.40dB, S/B 65 +/-1.0dB. No system impact. Use-As-Is.	Awaiting NASA approval	Lambert
173 1.	12/1/98	Mixer-Amplifier (Out-of-spec condition)	1331562-18	7A58	Gain Flatness was 0.58 dB peak-to-peak, S/B 0.5 dB max. No system impact. "Use-As-Is".	Awaiting NASA approval	Lambert
176 1:	12/1/98	Mixer-Amplifier (Out-of-spec condition)	1331562-18	7A68	Gain Flatness was 0.62 dB peak-to-peak, S/B 0.5 dB max. No system impact. "Use-As-Is".	Awaiting NASA approval	Lambert
11 221	12/1/98	Mixer-Amplifier (Out-of-spec condition)	1331562-19	7A69	1. LO to RF isolation measured 25.3 dB with +8.5 dBm LO power, S/B 27.5 dB min. 2. During input voltage and current test, current measured 51.1 mA @ +21 C, 50.9 mA @ -30 C and 51.0 mA @ +60 C, S/B 45 mA max. 3. Gain Flatness was 0.68 dB peak-to-peak, S/B 0.5 dB max. No system impact. "Use-As-Is".	Awaiting NASA approval	Lambert
174 1:	12/1/98	Mixer-Amplifier (Out-of-spec condition)	1331562-19	7A59	1. During input voltage and current test, current measured 50.8 mA @ +21 C, 50.6 mA @ -30 C and 51.0 mA @ +60 C, S/B 45 mA max. 2. Gain Flatness was 0.54 dB peak-to-peak, S/B 0.5 dB max. 3. Total Delta Gain measures 1.49 dB, S/B 1.4 dB max. No system impact. "Use-As-Is".	Awaiting NASA approval	Lambert
125 6	6/30/98	Mixer-Amplifier (Out-of-spec condition)	1331562-20	7A40	1) Gain Flatness was between 1.1 and 1.5dB, S/B 1.0dB peak-to-peak. 2) Gain Flatness was 1.3ddb peak-to-peak, S/B 1.0ddb max. 3) Mixer LO to RF isolation was 22.5dB, S/B 30db min. 4) N.F. was 3.96dB (S/B 3.8dB max). Use-As-Is.	Awaiting NASA approval.	Lambert
175 1	12/1/98	Mixer-Amplifier (Out-of-spec condition)	1331562-20	7A60	Gain Flatness was 1.15 dB peak-to-peak, S/B 1.0 dB max. No system impact. "Use-As-Is".	Awaiting NASA approval	Lambert

F/AR NO.	DOF	FAILED ITEM	PART NO.	SERIAL NO.	DESCRIPTION	STATUS	Τdl
151	8/27/98 8/31/98 9/1/98	Mixer-Amplifier (Out-of-spec condition)	1331562-20	7A50	1) RF return loss was 11.0dB @ 87.45GHz, 13.5dB @ 89.00GHz, 11.4dB @ 90.55GHz (S/B 14dB min). 2) Gain Flatness was 1.42dB peak-topeak, S/B 1.0 dB max. 3) Overall Gain was 55.34dB, S/B 53 +/-1.0dB. No system impact. Use-As-Is.	Awaiting NASA approval	Lambert
156	9/30/98	A1 METSAT Signal Processor (Shorted wire on backplane)	1331670-2	F04	Display on AASPTF was "FAIL 000", S/B "PASS". Wire from J310-64 to J301-21 shorted to post on J304-43.	Awaiting rework/retest.	Nieto
162	10/29/98	A1 Signal Processor (Faulty resistors)	1331670-2	F04	Digital A Temperature No. 15 readout was 32767, S/B 28259 to 32513. Digital A Temperature No. 33 readout was 24858, S/B 28259 to 32513. R34 on F33 and R35 on F28 found suspect.	Troubleshooting/analysis underway	Nieto
155	9/29/98	A1 Signal Processor (Cable and CCA plugged in wrong way)	1331670-2	F05	5V supply dropped to 2.7V. P1 of Scan Drive Interface cable and Motor Driver CCA plugged in the wrong way.	Rework/retest completed: Need final F/AR	Nieto
169	11/19/98	A1 Drive Assembly	1333640-1	F14	Current waveform commutation spikes above- limits.	Troubleshooting/analysis underway	Alvarez
048	12/1/97	A1 Rotating Assemblies (Inadequate lube on bearings)	1333647-1	F11, F12	Two of four units failed starting torque test at -10 C. Inadequate bearing lubrication due to repeated rinsing. Plan developed at Ball for lubrication of new bearing sets and relube of those removed from systems.	Awaiting NASA approval	Alvarez
7.70	4/15/98	A2 Drive Assembly	1333650-1	F05	Motor supply current exceeded spec. at both start- up and 500mVDC. Measured 51mADC and 52 mADC (S/B 50 mADC max). Motor returned to Vernitron.	Troubleshooting/analysis underway	Alvarez
186	2/15/99	A2 Drive Assembly	1333650-1	F05	Motor would not turn on. Did not rotate in CW or CCW directions.	Troubleshooting/analysis underway	Alvarez
167	11/19/98	A2 Drive Assembly (Motor clicking noise)	1333650-1	F08	Soft clicking noise heard as motor rotated.	Troubleshooting/analysis underway	Alvarez
290	3/26/98	Compensator (Motor would not rotate)	1333660-1	F05	Motor would not rotate. Hall-Effect devices found broken off of motor board. MAI revised.	Awaiting NASA approval	Alvarez

	Lambert	Lambert	· Lambert	Lambert	Lambert	Lambert	s Alvarez	Lambert	Lambert
	Need final draft	Troubleshooting/analysis underway	Troubleshooting/analysis underway	Awaiting NASA approval	Awaiting NASA approval.	Awaiting NASA approval	Analysis of removed bearings in progress.	Awaiting NASA approval	Troubleshooting/analysis
DESCRIPTION	Output power stability variation of 1.2 dB plus .5 dB allowance for aging exceeds spec of +/- 1.5 dB. (Litton)	During post-rework confidence test, oscillator exhibited reduced output of 10 dBM. Previously measured 11.8 dBM. (Litton)	During the transition from +25C to -12C (T/C # 1), the Channel 8 radiometric counts decreased from ~ 16,000 to ~ 8000. Cause isolated to CH 8 DRO.	85022 Channel 7 NEdettaT was between .45K and .65K (Removed (S/B .25 max)	FM2 During CS02 EMI testing, channel 15 counts (Removed dropped from 16200 to 11200. Cause isolated to from A1-202) faulty GDO. Gunn diode shorted.	After X-axis vibe, Channel 7 NEdeltaT was 0.447, S/B<0.25. Metal shavings in waveguide.	Barden examination of bearings removed from A2 drive assembly(F02) revealed contamination. Post vibration sine sweep anomaly caused by cracks in reflector bond area (See F/AR 160), not drive assy/bearings.	V(tune) changed by more than 5V+/-1V. (Litton)	Foreign material observed inside waveguide.
NO.	85096	85033	85074 (Removed from A1-105)	85022 (Removed from A1-202)	FM2 (Removed from A1-202)	85022 (Removed from A1-202)	Removed from A2 (105)	79032	79039
NO.	1336610-3	1336610-5	1336610-7	1336610	1336610-10	1336610	1338266-1	1348351-1	1348351-1
FAILED ITEM	Stable Oscillator (Output power stability out-of-spec)	Stable Oscillator (Low output)	DRO, Channel 8	DRO, Channel 7 (Channel 6 N.F. and Channel 7 NEdeltaT anomalies)	Stable Oscillator (Faulty Gunn Dłode)	DRO, Channel 7 (Channel 7 NEdeltaT degraded)	Bearing Assembly	57 GHz VCGDO (Gunn diode replaced)	VCGDO (Foreign material in
DOF	7/14/98	6/29/98	12/26/98	4/17/98	7/21/98	8/2/98	9/16/98	4/11/98	7/18/98
F/AR NO.	101	960	178	078	106	133	152	075	104

092 6/15/98	DOF FAILED ITEM	PART NO.	SERIAL NO.	DESCRIPTION	STATUS	IPT
	PLO Assembly (Lost lock at +60 C: EMI/RFI fitter shorted)	1348360-1	F05	During T/C, broke lock at +60 C. +15V supply dropped to +5V. Isolated cause to shorted EMI/RFI filter. During T/C, exhibited random spurs about main carrier signal. VCGDO and faceplate EMI filters replaced. Problem still exists.	Troubleshooting/analysis underway	Lambert
093 6/16/98	PLO Assembly (Lost lock between 32 C & 34.5 C)	1348360-1	F06	PLO lost lock when baseplate temperature was between 32 C and 34.5 C. Unit retuned (R1, R2 reselected). Deadband resolved.	Awaiting NASA approval	Lambert
139 8/20/98	PLO Assembly 8 (Spurs in main carrier signal)	1348360-1	F07, F08	During T/C, multiple spurs in main carrier signal. After both units were temperature cycled (before and after retuning) carrier signals showed no spurs.	Awaiting NASA approval	Lambert
158 10/20/98	PLO Assembly (Loose screw on DRO cover)	1348360-1	F09	DRO sweep frequency center was 6.899 GHz, S/B 6.8748 GHz. DRO signal would not lock. Loose screw found on DRO cover.	Awaiting NASA approval	Lambert
159 10/26/98	PLO Assembly (Resonator puck bond failure)	1348360-1	F10	PLO carrier lock signal was missing and the DRO sweep signal shifted. DRO opened and resonator puck found loose from DRO CCA.	Awaiting NASA approval	Lambert
183 2/2/99	PLO Assembly (Test setup current limit set low)	1348360-1	F11	During LPT, after Z-axis vibe, did not lock. Current limit in test setup for -15V inadvertently set to 80mA, S/B 100 mA. No failure of flight hardware.	Awaiting NASA approvat	Lambert
185 2/9/99	PLO Assembly	1348360-1	F12	PLO ouput power dropped at high temp (+44C).	Troubleshooting/analysis underway	Lambert
163 11/2/98	DRO Assembly (DRO cover reversed)	1348400-1	F10	DRO signal shifted 10 MHz to right of center frequency. DRO cover found reversed 180 degrees.	Awaiting NASA approval	Lambert
061 3/19/98	PLL Assembly (Faulty U2)	1348500-1	F06	Low resistance across C22. Cause isolated to faulty U2. Analysis indicated ESD damage.	Awaiting NASA approval: Pending calibration completion	Lambert
087 5/28/98	PLL Assembly (Faulty U2)	1348500-1	F10	During continuity test of C21, resistance was 7.5 kohms (S/B>1Mohm). Isolated to faulty U2; base-emitter shorted; inadequate emitter well coverage.	Awaiting NASA approval	Lambert

AMSU-A STATUS OF OPEN F/ARS

F/AR NO.	DOF	FAILED ITEM	PART NO.	SERIAL NO.	DESCRIPTION	STATUS	IPT
103	7/15/98	PLL Assembly (Faulty U2)	1348500-1	F13	During continuity test, resistance across C21, C22 and C24 measured 3.94Kohms, 260 ohms and 2.8 Kohms (S/B >1Mohm, >500 ohms, >1Mohm). U2 found defective; base-emitter shorted; inadequate emitter well coverage.	Awaiting NASA approval	Lambert
180	1/7/99	PLL Assembly (Vd of U1 out-of-limit)	1348500-1	F14	Output voltage of MMIC Amplifier (U1) measured 4.78 V, S/B 4 +/- 0.5V. Spec. for Vd changed to 3.5V to 5.5V.	Awaiting NASA approval	Lambert
134	8/8/8	A1-2 Receiver (PRT RT19 open; PRT RT22 shorted)	1356409-1	F02	PRT RT19 reads open; PRT RT22 is shorted. Both PRTs replaced.	Need final draft	Nieto
153	9/17/98	A1-2 Receiver (Noise power stability above spec.)	1356409-1	F03	Channels 3, 5 and 8 falled Noise Power Stability (NPS). The readings were .23, .107 and .108, S/B .12, .08 and .08 maximum.	Pre-ATP test incorporated: Need final draft	Lambert
168	11/19/98	A1-2 Receiver (Ch.8 N.F. anomaly)	1356409-1	F03	Channel 8 noise figure failed at +44 C. Could not be repeated. DRO replaced.	Troubleshooting/analysis underway	Lambert
070	4/1/98	A1-1 Receiver	1356429-1	F01	Channel 6 noise figure was 5.96 dB (S/B 5.2 dB max). Fault isolated to DRO. After DRO replacement, NF passed.	Awaiting NASA approval	Lambert
166	11/17/98	A1-1 Receiver (PLO loses lock)	1356429-1	F04	During receiver level adjustment of PLO power, PLO S/N F06 lost lock after 10 to 15 minutes .	Troubleshooting/analysis underway	Lambert
192	3/9/99	A1-1 Receiver (PLO loses lock at +5 C)	1356429-1	F05	During first temp cycle at +5.5 C, PLO lost lock. Verified by checkout with DC-DC eng model.	Troubleshooting/analysis underway	Lambert
193	3/16/99	A1-1 Receiver (Channel 7 DRO)	1356429-1	F05	Channel 7 IF power exhibited a gradual decrease from ~27 dBm to ~35 dBm while the temperature was decreased from room ambient to -20 C	Troubleshooting/analysis underway	Lambert
130	7/27/98	A2 Receiver (Faulty PRT)	1356441-1	F03	Resistance of PRT (RT17) measured 2.586kohm, S/B 2.2kohm +/-100ohm.	Troubleshooting/analysis underway	Lambert
131	7/28/98	A2 Receiver	1356441-1	F03	During N.F. test of Ch 2, IF power increased 8dB. No change in output (warm load to cold load).	Troubleshooting/analysis underway	Lambert
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AMSU-A STATUS OF OPEN F/ARs

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FAILED ITEM	EM	PAKI NO.	SEKIAL NO.	DESCRIPTION	STATUS	IPT
Power Relay and Housekeeping CCA (Wrong value resistor[R37)	r and g CCA lue 37)	1356969-1	C/N 002	Voltage Monitor Signal No. 9 measured 4.08V, S/B 2.85 to 3.15V. Value of R37 was incorrect (measured 14.964kohm, S/B 10kohm).	Need final draft	Nieto
V-Band PLO (TRW) (EMI test anomalies)	TRW) nalies)	857270-001	002	Emission levels exceeded spec during RE02 narrowband and CE03 narrowband. No system impact. TRW to add conductive epoxy around worst leakage areas. (TRW)	Awaiting NASA approval	Lambert

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Section 7

CONFIGURATION MANAGEMENT STATUS REPORT (CDRL 203)

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Section 7

CONFIGURATION MANAGEMENT STATUS REPORT (CDRL 203)

During this reporting period 5 drawings were released and submitted to NASA by Configuration Management.

No Deviations or Waivers were generated during this reporting period. Deviations/Waivers are shown in the Table below.

DEVIATION/WAIVER STATUS

DEV/ WAV	DATE	TITLE	PART NAME	PART NO.	EFF	STATUS
W001	8/14/95	Alt Vendor Cert.	Brushless Mtr A1 Brushless Mtr A2 Resolver		105-UP/202-UP	Disappvd 9/25/95
D001	9/29/97	Conformal Coating	Circuit Card Assemblies	Various	All CCA's	Resubmit as Rev A
D001A	11/11/97	Conformal Coating	Circuit Card Assemblies	Various	All CCA's	Cancelled

Configuration Management issued 16 Class IB and 4 Class II Engineering Change Notices (ECN) as shown in Table X.

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TABLE X ECN'S PROCESSED DURING MARCH 1999

DATE	CAMSU	DOCUMENT		PCCD	
ISSUED	ECN NO.	NO./REV.	TITLE	DATE	CLASS.
3/3/99	2086	1338403/C	Shipping Cont, Target Assy	3/5/99	11
3/3/99	2087	AE-26156/4D	METSAT/KLM/AMSU-A2 Sys Comp	3/22/99	IB
3/5/99	2088	1356021/NC	EOS/AMSU A-2 Drawing Tree	3/10/99	IB
3/6/99	2089	AE-26151/12	Monentum Comp/Uncomp Test Proc	3/17/99	IB
3/10/99	2090	AE-26151/3B	Ctr of Grivity/Weight Test Proc		ΙΒ
3/17/99	2091	AE-26156/3B	METSAT A1 CPT Test Proc	3/22/99	IB
3/18/99	2092	AE-26357/B	Transportation/Handling Proc	3/22/99	IB
3/18/99	2093	1338394/N	Shipping Configuration	3/14/99	11
3/18/99	2094	1338395/K	Shipping Configuration	3/14/99	II
3/18/99	2095	1331720/AH	AMSU Assy - A1	3/19/99	IB
3/19/99	2096	1333060/G	Handling Fixture		IB
3/22/99	2097	1333081/NC	Spacecraft Int Fixt-Ctr Bal, A2	3/26/99	IB
3/22/99	2098	1333090/A	Spacecraft Integration Fixture, A2	3/26/99	ΙΒ
3/23/99	2099	AE-26156/4D	Sys Compl/Lim Perf Tests Tst Proc	4/2/99	ΙΒ
3/23/99	2100	1333648/F	Motor, Torque		ΙB
3/24/99	2101	AE-26156/3B	CPT/LPT Test Proc, METSAT A1	4/2/99	IB
3/25/99	2102	1331100/E	Attenuator, Waveguide - A2	4/6/99	IB
3/29/99	2103	T-1291019/A	Handlg Plate, W&CG, AMSU-A1/A2	3/31/99	11
3/29/99	2104	AE-26156/3B	CPT/LPT Test Proc, METSAT A1	4/2/99	IB
3/30/99	2105	1357249/C	Monitor Assy		IB

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Section 8

DOCUMENT / DATA MANAGEMENT STATUS REPORT

Section 8 DOCUMENT/DATA MANAGEMENT STATUS REPORT

8.1 March submittals. During this reporting period, Data Management submitted forty seven Contract Documentation Requirements Listings (CDRLs) as shown in Table XI.

Table XI March Document Submittal

05.5		ocument Submitt	
CDRI	Description	Due to NASA	Submitted
No.			to NASA
l., ,	1000		
March	1999		
00	DDDD D . DI		
29	PRER Data Pkg:	0.10.0.10.0	0.100.100
	Rpt 11387, Bk 2	3/30/99	3/29/99
	Rpt 11387, Bk 1	3/31/99	3/20/99
	Rpt 11386, Bk 1 & 2	3//31/99	3/30/99
32	PSR Data Pkg:	0.40 - 40 0	212.112.2
	Report 11393, Bk 2	3/24/99	3/24/99
	Report 11393, Bk 1	3/25/99	3/24/99
	Report 11392, Bk 2	3/25/99	3/24/99
l	Report 11392, Bk 1	3/26/99	3/25/99
203	Configuration Management	3/12/99	3/12/99
	Status Rpt (Included in CDRL 529)		
204	Performance Assurance Status	3/12/99	3/12/99
	Report (Included in CDRL 529)		
207	Engineering Test Reports:		
	Report 11382	3/16/99	3/15/99
	Report 11407	3/3/99	3/2/99
	Report 11411	3/3/99	3/2/99
	Report 11441	3/25/99	3/24/99
	Report 11440	4/1/99	3/31/99
	Report 11442	4/1/99	3/31/99
	Report 11443	4/1/99	3/31/99
	Report 11444	4/1/99	3/31/99
	Report 11445	3/25/99	3/24/99
	Report 11446	3/25/99	3/24/99
	Report 11470	4/1/99	3/31/99
208	Performance Verif. Report:		
1	Report 11406	3/5/99	3/4/99
	Report 11408	3/5/99	3/4/99
	Report 11409	3/11/99	3/10/99
	Report 11421	3/16/99	3/15/99
	Report 11426	3/23/99	3/22/99
1	Report 11428	3/25/99	3/24/99
211	Problem/Failure Rpt Close-Out:		
	F/AR 159	*	3/1/99
	F/AR 160	*	3/4/99
Į.	F/ARs 107,171,181,190 & 191	*	3/15/99
215	Trend Analysis Reports:		
	Rpt 11435	3/30/99	3/29/99
	Rpt 11436	3/29/99	3/26/99

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CDRL	Description	Due to NASA	Submitted
No.			to NASA
March	(Continued):		
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222	Spec Comp/Calib Data Books:		
1	Report 11429	3/29/99	3/26/99
l	Report 11430	3/23/99	3/22/99
406	Trans Hanlg Proc, AE-26357C	3/30/99	3/29/99
409	Detailed Test Proc,AE-26156/3B	*	3/17/99
	AE-26151/2C	*	3/18/99
	AE-26151/7H	*	3/24/99
410	Det Ground Cal Proc, AE-26156/6D	*	3/29/99
503	Weight/Power Budgets (Included in CDRL 529)	3/12/99	3/12/99
509	Approved or Controlled Dwgs	Monthly	3/8/99
512	Config Cont Changes, CCR-8126	3/8/99	3/8/99
	CCR-8127	3/16/99	3/15/99
	CCR-8128	3/18/99	3/17/99
	CCR-8127A	3/25/99	3/24/99
518	Indentured Dwg List (105-A1/2)	3/5/99	3/4/99
521	Weekly Status Report	Weekly	3/5, 3/11, 3/19, & 3/26/99
523	Performance Measurement Status	3/22/99	3/19/99
	Report (Included in CDRL 534)		
525	As-Built Materials Lists:		
l	Rpts 11448/11449	3/30/99	3/29/99
526	Acceptance Data Package:		
	Rpts 11279/11280	4/1/99	3/31/99
527	As Des Pts List (EEE) Rpt 10385A	4/1/99	3/31/99
529	Reports of Work (Mo Status Rpt)	3/12/99	3/12/99
534	Mo./Qrtly. Financial Mgmt. Rpt. (NASA Fm. 533M/533Q)	3/22/99	3/19/99
*	As Generated		

8.2 Scheduled submittals. In accordance with the EOS/METSAT Master CDRL Schedule, the CDRL items listed in Table XII will be submitted to NASA during the months of April and May 1999.

Table XII Planned Document Submittals for April 1999

CDRL	Description	Due to NASA	Submitted
No.			to NASA
April 1	999		
203	Configuration Management	4/15/99	
203	Status Rpt (Included in CDRL 529)	410/00	
204	Performance Assurance Status	4/15/99	
	Report (Included in CDRL 529)		
208	Perf. Verif. Report 11413	4/14/99	4/13/99
409	Detailed Test Procedures:	4/2/99	4/1/00
	AE-26151/12A		4/1/99
	AE-26156/3C	4/13/99	4/12/99
	AE-26154/4E AE-26156/5D	4/7/99 4/6/99	4/7/99 4/5/99
503	Weight/Power Budgets	4/0/99 4/15/99	4/5/99
303	(Included in CDRL 529)	4/10/00	
509	Approved or Controlled Dwgs	Monthly	4/13/99
512	Config Cont Chg, CCR-8128A	4/5/99	4/2/99
521	Weekly Status Report	Weekly	4/1/99
523	Performance Measurement Status	4/26/99	1,1,00
020	Report (Included in CDRL 534)	1,20,00	
525	As-Built Matl List, Rpt 11449A	4/13/99	4/12/99
529	Reports of Work (Mo Status Rpt)	4/15/99	
534	Mo./Qrtly. Financial Mgmt. Rpt.	4/26/99	
	(NASA Fm. 533M/533Q)		
535	Small Bus Subcont Rpt (Fm 294)	4/30/99	
536	Small Bus Subcont Rpt (Fm 295)	4/30/99	

Table XII Planned Document Submittals for May 1999

CDRL No.	Description	Due to NASA	Submitted to NASA
May 1	999		
203	Configuration Management Status Rpt (Included in CDRL 529)	5/14/99	
204	Performance Assurance Status Report (Included in CDRL 529)	5/14/99	
503	Weight/Power Budgets (Included in CDRL 529)	5/14/99	
509	Approved or Controlled Dwgs	Monthly	
518	Indentured Dwg List (105-A2)		
521	Weekly Status Report	Weekly	
523	Performance Measurement Status Report (Included in CDRL 534)	5/24/99	
529	Reports of Work (Mo Status Rpt)	5/14/99	
534	Mo./Qrtly. Financial Mgmt. Rpt. (NASA Fm. 533M/533Q)	5/24/99	
None	Award Fee Technical Milestones	5/31/99	

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APPENDIX A

AMSU-A 90 DAY WINDOW SCHEDULE

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MET FLIGHT 1 AMSU-A INSTRUMENT FLOAT ANALYSIS REPORT - MARCH '99

## ACTUAL BASELINE ACTUAL BASELINE ACTUAL BASELINE A/28/99		COMPLETION	NOATES		FI OAT		
SIN 106 AMSU-A1 INSTRUMENT ASSELINE ACTUAL BASELINE MONTH MONTH INSTRUMENT DELIVERY 371/99 4/28/99 17 -19 -19 PRE-PLANNED SCH-EDULE RESERVE 2/25/99 4/28/99 17 -19 -19 PRE-PLANNED SCH-EDULE RESERVE 2/25/99 4/28/99 17 -10 -19 PRE-PLANNED SCH-EDULE RESERVE 2/4/99 4/28/99 17 -10 -19 SYSTEM INTEGRATION & TEST 1/12/99 3/17/99Act 0 -10 NA COMPLE SIGNAL PROCESSOR ASSY 4/15/99Act 0 NA NA COMPLE DOCO CONVERTER REST 3/11/97Act 1/11/97Act NA NA COMPLE PERAMP DETECTOR ASSY 3/11/97Act 9/11/97Act NA NA COMPLE PLOCO CONVERTER REST 6/16/99 3/11/99Act 0 NA NA COMPLE PRA A11/99Act 6/16/99Act 0 NA NA COMPLE PSA A11/99Act <t< td=""><td></td><td>12/1/97</td><td>FORECAST</td><td></td><td>LAST</td><td>THIS</td><td></td></t<>		12/1/97	FORECAST		LAST	THIS	
SN 105 AMSU.A INSTRUMENT 3/199 4/28/99 17 -19 Contract D NSTRUMENT DELIVERY 2/25/99 4/28/99 17 -19 -19 PRE-PLANNED SCHEDULE RESERVE 2/25/99 4/28/99 17 -19 -19 PRE-PLANNED SCHEDULE RESERVE 2/499 4/28/99 17 -19 -19 PSH PRE-PLANNED SCHEDULE RESERVE 2/499 3/42/89/40 -10 -19 COMPLE SYSTEM INTEGRATION 1/22/99 3/17/99.40 -10 -19 COMPLE SANTEMINA ASSEMBLY 3/24/99 1/14/98/Act 0 NA NA COMPLE PREAMP DETECTIOR ASSY 4/15/99 3/16/98/Act 0 NA NA COMPLE POCON CONVERTER FEB 5/19/98 3/16/98/Act 0 NA NA COMPLE PLO ASSYS 4/16/99 3/16/98/Act 0 NA NA COMPLE PLO ASSYS 4/16/99 4/28/99 0 -19 COMPLE SN 105 AMSU.A2 INSTRUMENT 2/29/98 4/28/99 0 -19 COMPLE SN 105 AMSU.A2 INSTRUMENT 2/29/98 4/28/99 0 -19 COMPLE SN 105 AMSU.A2 INSTRUMENT 2/29/98 4/28/99 0 -19 COMPLE SN 105 AMSU.A2 INSTRUMENT 2/29/98 4/28/99 0 -19 COMPLE SN 105 AMSU.A2 INSTRUMENT 2/29/98 4/28/99 0 -19 COMPLE SN 105 AMSU.A2 INSTRUMENT 2/29/98 4/28/99 0 -19 COMPLE SN 105 AMSU.A2 INSTRUMENT 2/29/98 4/28/99 0 -19 COMPLE SN 105 AMSU.A2 INSTRUMENT 2/29/94 4/28/99 0 -19 COMPLE SN 105 AMSU.A2 INSTRUMENT 2/29/94 4/28/99 0 0 0 0 SN 105 AMSU.A2 INSTRUMENT 2/29/94 0 NA COMPLE SN 105 AMSU.A2 INSTRUMENT 2/29/94 0 NA NA COMPLE SN 105 AMSU.A2 INSTRUMENT 2/29/94 0 NA NA COMPLE SN 105 AMSU.A2 INSTRUMENT 2/29/94 1/29/94 0 NA NA COMPLE A/29/97 AMSU 2/29/94 0 NA NA COMPLE DCDC CONVERTER (FE) 0/29/94 1/29/94 0 NA NA COMPLE DCDC CONVERTER (FE) 0/29/94 1/29/94 0 NA NA COMPLE DCDC CONVERTER (FE) 0/29/94 1/29/97	UNITS & SUBASSYS	BASELINE	/ACTUAL	BASELINE	MONTH	MONTH	SCHEDULE DRIVER/COMMENTS
NSTRUMENT DELIVERY	S/N 105 AMSU-A1 INSTRUMENT						
PRE-PLANNED SCHEDULE RESERVE 2/25/99 4/28/99 17 -10 -19	INSTRUMENT DELIVERY	3/1/99	4/28/99	0	-10	-19	Contract Delivery Date Changed to 4/1/99
SYSTEM INTEGRATION 27/199 3/24/99461 2 9 NA	PRE-PLANNED SCHEDULE RESERVE	2/25/99	4/28/99	17	-10	-19	
SYSTEM INTEGRATION SYSTEM INTEGRATION & TEST ANTENNA ASSEMBLY SIGNAL PROCESSOR ASSY ANTENNA ASSEMBLY SIGNAL PROCESSOR ASSY ANTENNA ASSEMBLY BECONVERTER (FE) A1198Act A11 RECEIVER ASSY B1197BAct B1197BAct A127BB B127BBAct B1197BAct B1197BAc	PSR	2/4/99	4/28/99	0	-10	-19	
SYSTEM INTEGRATION & TEST 1/12/99 3/17/994ct 0 -10 NA ANTEGRATION & TEST 3/24/98 1/14/984ct 0 NA NA SIGNAL PROCESSOR ASSY 4/14/97Act 9/11/97Act 0/11/97Act	SHIPPING CONFIGURATION	66/2/7	3/24/99Act	2	6-	ΑN	COMPLETE
ANTENNA ASSEMBLY SIGNAL PROCESSOR ASSY A11/98 316/98Act DCDC CONVERTER (FE) A11/97Act A11/97Act A11/97Act DCDC CONVERTER (FE) A11/97Act A11/98Act DCDC CONVERTER (FE) A127/98 6/16/98 B118/98Act DROS (Litton) A127/98 6/16/98 B118/98Act DROS (Litton) A127/98 6/16/98 B118/98Act DROS (Litton) A128/99	SYSTEM INTEGRATION & TEST	1/12/99	3/17/99Act	0	-10	NA NA	COMPLETE
SIGNAL PROCESSOR ASSY	ANTENNA ASSEMBLY	3/54/98	1/14/98Act	0	ΑA	NA	COMPLETE
PREAMP DETECTOR ASSY 9/11/97Act NA NA NA DC/DC CONVERTER (FEI) 7/27/98 5/5/98Act 0 NA	SIGNAL PROCESSOR ASSY	4/15/98	3/16/98Act	0	ΑĀ	ΑA	COMPLETE
DC/DC CONVERTER (FE) 7/27/98 5/5/98Act 0 NA NA NA DROCEDUER ASSY 6/16/98 9/22/98Act 0 NA NA NA PLO ASSYs 5/18/98 4/27/98Act 0 NA NA NA NA A1-2 RECEIVER ASSY 6/16/98 8/18/98Act 0 NA NA NA DROS (Litton) 5/20/98 6/3/98Act 0 NA NA NA NA DROC CONVERTER (FE) 4/19/98 1/28/99 0 0 -19 NATIENNA ASSEMBLY 4/28/99 0 0 -19 NATIENNA ASSEMBLY 4/19/98 3/12/99Act 0 NA NA NATIENNA ASSEMBLY 4/19/98 3/12/99Act 0 NA NA NA DC/DC CONVERTER (FE) 4/19/98 1/12/99Act 0 NA NA NA DC/DC CONVERTER (FE) 4/19/98 1/12/99Act 0 NA NA NA DC/DC CONVERTER (FE) 4/19/98 1/12/99Act 0 NA NA NA DC/DC CONVERTER (FE) 6/3/98 7/14/99Act 0 NA NA NA NA DC/DC CONVERTER (FE) 6/3/99Act 12/3/97Act 12/3/97Act 12/3/97Act 12/3/97Act 12/3/97Act NA NA NA NA NA DC/DC CONVERTER (FE) 6/3/99 7/14/99Act 0 NA NA NA NA NA DC/DC CONVERTER (FE) 12/3/97Act 12/3/97Act 12/3/97Act 12/3/97Act NA	PREAMP DETECTOR ASSY	9/11/97Act	9/11/97Act	NA	ΑA	AN	COMPLETE
A1-1 RECEIVER ASSY DROS (Litton) A1-27/98 B1-12 RECEIVER ASSY A1-27/98 B1-12 RECEIVER ASSY B1-12 RECEIVER RESERVE B1-12 RECEIVER ASSY B1-12 RECEIVER	DC/DC CONVERTER (FEI)	7/27/98	5/5/98Act	0	¥	NA	COMPLETE
DROS (Litton) 4/27/98 6/1/98Act 0 NA NA PLO ASSYs 6/18/98 4/27/98Act 0 NA NA A1-2 RECEIVER ASSY 6/16/98 8/18/98Act 0 NA NA DROS (Litton) 5/20/98 6/3/98Act 0 NA NA SIN 105 AMSU-AZ INSTRUMENT 3/1/99 4/28/99 0 0 -19 PRE-PLANNED SCHEDULE RESERVE 2/25/99 4/28/99 0 0 -19 PRE-PLANNED SCHEDULE RESERVE 2/25/99 4/28/99 0 0 -19 PRE-PLANNED SCHEDULE RESERVE 2/25/99 4/28/99 0 0 -19 PRE-PLANNED SCHEDULE RESERVE 12/23/98 4/28/99 0 0 -19 SYSTEM INTEGRATION & TEST 12/1/98 3/12/99Act 0 NA NA SYSTEM INTEGRATION & TEST 12/1/98 3/12/99Act NA NA NA ARABAMP DETECTOR ASSY 6/2/97Act 6/2/97Act NA NA NA	A1-1 RECEIVER ASSY	6/16/98	9/22/98Act	0	NA	MA	COMPLETE
PLO ASSYS	DROs (Litton)	4/27/98	6/1/98Act	0	¥Υ	AM	COMPLETE
A1-2 RECEIVER ASSY DROS (Litton) S/20/98 6/3/98Act 0 NA NA S/20/98 6/3/98Act 0 NA NA S/1/99 A/28/99 A/28/99 O 12/23/98 A/28/99 A/28/99 O 12/23/98 A/28/99 A/28/99 O 12/23/98 A/28/99 O SYSTEM INTEGRATION 12/21/98 3/15/99Act A/14/98 ANTENNA ASSEMBLY A/14/98 A/14/98 A/14/98 A/14/98 A/14/98 A/14/98 A/14/98 A/14/98 A/14/98 A/14/98Act DROS (Litton) DROS (Litton) A/14/98 A/14/98Act DROS (Litton) A/14/98Act A/14/98 A/14/98Act A/14/98Act A/14/98Act DROS (Litton) A/14/98 A/14/98 A/14/98Act A/14/98 A/1	PLO ASSYs	5/18/98	4/27/98Act	0	¥	AN	COMPLETE
DROs (Litton) 5/20/98 6/3/98Act 0 NA NA S/N 105 AMSU-AZ INSTRUMENT 3/1/99 4/28/99 0 0 -19 INSTRUMENT DELIVERY 3/1/99 4/28/99 0 0 -19 PRE-PLANNED SCHEDULE RESERVE 2/25/99 4/28/99 0 0 -19 PRE-PLANNED SCHEDULE RESERVE 1/2/23/98 4/28/99 0 2 -19 PRE-PLANNED SCHEDULE RESERVE 1/2/23/98 4/28/99 0 0 0 -19 PRE-PLANNED SCHEDULE RESERVE 1/2/23/98 4/2/29/96 0 0 0 NA SHIPPING CONFIGURATION & TEST 1/2/21/98 3/1/399Act 0 0 NA NA ANTENNA ASSEMBLY 4/1/39 1/2/39/98Act 0 NA NA NA PREAMP DETECTOR ASSY 6/2/37Act 6/2/37Act 0 NA NA NA AZ RECEIVER ASSY 6/3/98 7/1/4/98 0 NA NA NA DROS (Litton) <t< td=""><td>A1-2 RECEIVER ASSY</td><td>6/16/98</td><td>8/18/98Act</td><td>0</td><td>Ν Α</td><td>NA</td><td>COMPLETE</td></t<>	A1-2 RECEIVER ASSY	6/16/98	8/18/98Act	0	Ν Α	NA	COMPLETE
S/N 105 AMSU-AZ INSTRUMENT INSTRUMENT DELIVERY		5/20/98	6/3/98Act	0	NA	ΑΝ	COMPLETE
S/N 105 AMSU-AZ INSTRUMENT INSTRUMENT DELIVERY INSTRUMENT							- And and the second se
3/1/99 4/28/99 0 0 -19 ULE RESERVE 2/25/99 4/28/99 44 4 -19 ULE RESERVE 2/25/99 4/28/99 44 4 -19 ATION 12/23/98 4/28/99 0 2 -19 ATION 12/21/98 3/15/99Act 0 0 NA NA NLY 4/1/98 1/29/98Act 0 NA NA NA NA NR ASSY 6/2/97Act 6/2/97Act 6/2/97Act 0 NA NA NA Y 6/3/98 7/14/98Act 0 NA NA NA NA Y 6/3/97Act 12/3/97Act 12/3/97Act NA NA NA NA Y 6/3/98 7/14/98Act NA NA NA NA NA							
PLANNED SCHEDULE RESERVE 2/25/99 4/28/99 44 4 - 19 12/23/98 4/28/99 0 2 -19 12/23/98 3/15/99Act 3 0 NA	INSTRUMENT DELIVERY	3/1/99	4/28/99	0	0	-19	Contract Delivery Date Changed to 4/1/99
12/23/98 4/28/99 0 2 -19	PRE-PLANNED SCHEDULE RESERVE	2/25/99	4/28/99	44	4	-19	
TEST 12/21/98 3/15/99Act 3 0 NA NA 12/1/98 3/12/99Act 0 0 NA	PSR	12/23/98	4/28/99	0	2	-19	
12/1/98 3/12/99Act 0 0 NA NA 4/1/98 1/29/98Act 0 NA NA NA NA 4/8/98 3/9/98Act 0 NA NA NA NA 4/14/98 4/7/98Act 0 NA NA NA NA 6/3/98 7/14/98Act 0 NA NA NA NA 12/3/97Act 12/3/97Act 12/3/97Act NA	SHIPPING CONFIGURATION	12/21/98		3	0	NA	COMPLETE
SY 4/88 1/29/98Act 0 NA NA NA NA NA NA 4/8/98 3/9/98Act 0 NA NA NA NA 4/14/98 4/7/98Act 0 NA	SYSTEM INTEGRATION & TEST	12/1/98	3/12/99Act	0	0	NA	COMPLETE
SY 4/8/98 3/9/98Act 0 NA NA NA NA 6/2/97Act 6/2/97Act NA NA NA NA NA 6/3/98 7/14/98Act 0 NA NA NA NA 12/3/97Act 12/3/97Act NA	ANTENNA ASSEMBLY	4/1/98	1/29/98Act	0	NA		COMPLETE
12/3/97Act 6/2/97Act NA NA NA NA 4/14/98 4/7/98Act 0 NA NA NA NA 6/3/98 7/14/98Act 0 NA NA NA 12/3/97Act 12/3/97Act 12/3/97Act NA NA NA NA	SIGNAL PROCESSOR ASSY	4/8/98	3/9/98Act	0	NA		COMPLETE
4/14/98 4/7/98Act 0 NA NA 6/3/98 7/14/98Act 0 NA NA 12/3/97Act 12/3/97Act NA NA NA NA	PREAMP DETECTOR ASSY	6/2/97 Act	6/2/97 Act	NA	NA		COMPLETE
6/3/98 7/14/98Act 0 NA NA NA 12/3/97Act 12/3/97Act NA NA NA NA NA NA	DC/DC CONVERTER (FEI)	4/14/98	4/7/98Act	0	NA		COMPLETE
12/3/97Act 12/3/97Act NA NA NA NA NA	A2 RECEIVER ASSY	86/2/9	7/14/98Act	0	NA		COMPLETE
	DROs (Litton)	12/3/97Act	12/3/97 Act	AN	NA		COMPLETE

MET FLIGHT 2 AMSU-A INSTRUMENT FLOAT ANALYSIS REPORT - MARCH '99

	COMPI FT	TION DATES		FIOAT		
		FORECAST		LAST	THIS	
	BASELINE	/ACTUAL	BASELINE	MONTH	MONTH	
UNITS & SUBASSYS	12/1/97		12/1/97			SCHEDULE DRIVER/COMMENTS
S/N 106 AMSU-A1 INSTRUMENT						
INSTRUMENT DELIVERY	7/1/99	66/08//	0	0	0	Contract Delivery Date Changed to 8/1/99
PRE-PLANNED SCHEDULE RESERVE	66/08/9	7/29/99	56	8	0	
PSR	4/12/99	2/29/99	0	0	0	
SHIPPING CONFIGURATION	4/12/99	6/53/38	1	ဗ	0	
SYSTEM INTEGRATION & TEST	3/17/99	6/22/9	0	0	0	
ANTENNA ASSEMBLY	86/8/9	4/1/98Act	0	ΑN	Ν A	COMPLETE
SIGNAL PROCESSOR ASSY	6/24/98	6/8/98Act	0	NA	NA	COMPLETE
PREAMP DETECTOR ASSY	11/6/97Act	11/6/97Act	NA	NA	NA	COMPLETE
DC/DC CONVERTER (FEI)	6/22/98	9/8/98Act	0	NA	NA	COMPLETE
A1-1 RECEIVER ASSY	8/25/98	12/4/98Act	0	NA	NA	COMPLETE
DROs (Litton)	2/7/98	6/23/98Act	0	NA	NA	COMPLETE
PLO ASSYs	7/28/98	9/19/98Act	0	NA	NA	COMPLETE
A1-2 RECEIVER ASSY	8/25/98	11/6/98Act	0	NA	NA	COMPLETE
DROs (Litton)	2/9/98	6/23/98Act	0	NA	NA	COMPLETE
S/N 106 AMSU-A2 INSTRUMENT						
INSTRUMENT DELIVERY	7/1/99	66/08/2	0	0	0	Contract Delivery Date Changed to 8/1/99
PRE-PLANNED SCHEDULE RESERVE	6/30/99	7/29/99	59	78	14	
PSR	4/7/99	66/6/2	0	0	0	And the second s
SHIPPING CONFIGURATION	4/5/99	66/6/9	2	3	0	
SYSTEM INTEGRATION & TEST	3/22/99	6/7/9	0	0	0	
ANTENNA ASSEMBLY	7/20/98	4/16/98Act	0	NA	NA	COMPLETE
SIGNAL PROCESSOR ASSY	8/11/98	5/28/98Act	0	NA	NA	COMPLETE
PREAMP DETECTOR ASSY	6/2/97Act	6/2/97Act	ΑN	Α	NA	COMPLETE
DC/DC CONVERTER (FEI)	8/17/98	8/17/98Act	0	NA	NA	COMPLETE
A2 RECEIVER ASSY	10/6/98	9/3/98Act	0	NA	NA	COMPLETE
DROs (Litton)	8/12/98	5/8/98Act	0	NA	NA	COMPLETE

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MET FLIGHT 3 AMSU-A INSTRUMENT FLOAT ANALYSIS REPORT - MARCH '99

	COMPLET	ION DATES		FLOAT		
		FORECAST		LAST	THIS	
	BASELINE	/ACTUAL	BASELINE	MONTH	MONTH	
UNITS & SUBASSYS	12/1/97		12/1/97			SCHEDULE DRIVER/COMMENTS
S/N 107 AMSU-A1 INSTRUMENT						
INSTRUMENT DELIVERY	12/1/99	12/1/99	0	0	0	
PRE-PLANNED SCHEDULE RESERVE	11/30/99	11/30/99	61	54	53	
PSR	9/1/89	9/14/99	0	0	0	
SHIPPING CONFIGURATION	66/06/8	8/13/88	1	1	0	
SYSTEM INTEGRATION & TEST	66/6/8	66/6/8	0	0	0	
ANTENNA ASSEMBLY	9/16/98	10/12/98Act	0	NA	NA	COMPLETE
SIGNAL PROCESSOR ASSY	10/15/98	10/16/98Act	0	NA	NA	COMPLETE
PREAMP DETECTOR ASSY	1/20/99	3/24/98Act	0	NA	NA	COMPLETE
DC/DC CONVERTER (FEI)	10/8/98	10/28/98Act	0	NA	NA	COMPLETE
A1-1 RECEIVER ASSY	12/16/98	2/4/99Act	0	NA	NA	COMPLETE
DROs (Litton)	8/22/98	6/23/98Act	0	NA	NA	COMPLETE
PLO ASSYs	9/14/98	11/12/98Act	0	NA	NA	COMPLETE
A1-2 RECEIVER ASSY	12/10/98	12/28/98Act	0	NA	NA	COMPLETE
DROs (Litton)	9/53/38	6/25/98Act	0	NA	NA	COMPLETE
S/N 107 AMSU-A2 INSTRUMENT						
INSTRUMENT DELIVERY	12/1/99	12/1/99	0	0	0	
PRE-PLANNED SCHEDULE RESERVE	11/30/99	11/30/99	101	1	72	
PSR	66/2/2	8/17/99	0	-	0	
SHIPPING CONFIGURATION	2/1/99	7/19/99	2	0	0	
SYSTEM INTEGRATION & TEST	6/51/99	7/12/99	0	0	0	
ANTENNA ASSEMBLY	10/26/98	6/24/98Act	0	NA	NA	COMPLETE
SIGNAL PROCESSOR ASSY	11/2/98	10/6/98Act	0	NA	NA	COMPLETE
PREAMP DETECTOR ASSY	6/2/97 Act	6/2/97 Act	NA	NA	NA	COMPLETE
DC/DC CONVERTER (FEI)	11/5/98	9/17/98Act	0	NA	NA	COMPLETE
A2 RECEIVER ASSY	1/6/99	11/3/98Act	0	NA	NA	COMPLETE
DROs (Litton)	11/4/98	6/29/98Act	0	ΝΑ	NA	COMPLETE

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MET FLIGHT 4 AMSU-A INSTRUMENT FLOAT ANALYSIS REPORT - MARCH '99

	COMPLETI	ON DATES		FI OAT		
		FORECAST		IAST	ZHIZ	
	BASELINE	/ACTUAL	BASELINE	MONTH	MONTH	
UNITS & SUBASSYS	12/1/97		12/1/97			SCHEDULE DRIVER/COMMENTS
S/N 108 AMSU-A1 INSTRUMENT						
INSTRUMENT DELIVERY	3/30/00	3/31/00	0	0	0	
PRE-PLANNED SCHEDULE RESERVE	3/29/00	3/30/00	92	36	56	
PSR	12/21/99	1/12/00	0	0	0	
SHIPPING CONFIGURATION	12/19/99	12/6/99	2	-	0	
SYSTEM INTEGRATION & TEST	11/28/99	11/29/99	0	0	0	Antenna
ANTENNA ASSEMBLY	2/18/99	4/13/99	0	0	-	
SIGNAL PROCESSOR ASSY	3/16/99	10/21/98Act	0	NA	NA	COMPLETE
PREAMP DETECTOR ASSY	5/26/99	3/25/98Act	0	NA	ΝA	COMPLETE
DC/DC CONVERTER (FEI)	3/15/99	11/25/98Act	0	NA	NA	COMPLETE
A1-1 RECEIVER ASSY	5/4/99	4/20/99	0	71	45	
DROs (Litton)	10/27/98	8/11/98Act	0	NA	NA	COMPLETE
PLO ASSYs	10/27/98	1/21/99Act	0	NA	NA	COMPLETE
A1-2 RECEIVER ASSY	2/25/99	3/16/99Act	0	78	NA	COMPLETE
DROs (Litton)	12/9/98	8/11/98Act	0	NA	NA	COMPLETE
S/N 108 AMSU-A2 INSTRUMENT						
INSTRUMENT DELIVERY	3/30/00	3/31/00	0	0	0	
PHE-PLANNED SCHEDULE RESERVE	3/29/00	3/30/00	111	106	105	
PSR	10/13/99	10/25/99	0	0	0	
SHIPPING CONFIGURATION	10/11/99	9/24/99	2	5	0	
SYSTEM INTEGRATION & TEST	9/27/99	9/17/99	0	0	0	
ANTENNA ASSEMBLY	1/11/99	3/1/99Act	0	NA	NA	COMPLETE
SIGNAL PROCESSOR ASSY	2/16/99	10/15/98Act	0	NA	NA	COMPLETE
PREAMP DETECTOR ASSY	6/2/97Act	6/2/97 Act	NA	NA	NA	COMPLETE
DC/DC CONVERTER (FEI)	2/22/99	12/7/98Act	0	NA	NA	COMPLETE
A2 RECEIVER ASSY	4/13/99	12/7/98Act	0	NA	۷Ą	COMPLETE
DROs (Litton)	2/18/99	8/11/98Act	0	NA	NA	COMPLETE

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MET FLIGHT 5 AMSU-A INSTRUMENT FLOAT ANALYSIS REPORT - MARCH '99

	COMPLETI	ON DATES		FLOAT		
	BASELINE	FORECAST /ACTUAL	BASELINE	LAST	MONTH	
UNITS & SUBASSYS	12/1/97		12/1/97			SCHEDULE DRIVER/COMMENTS
AMSU-A1 INSTRUMENT						
INSTRUMENT DELIVERY	8/1/00	00/08/9	0	0	0	
PRE-PLANNED SCHEDULE RESERVE	2/31/00	6/29/00	63	43	61	
	2/1/00	00/4/4	0	0	0	
SHIPPING CONFIGURATION	4/26/00	00/9/8	•	3	0	
SYSTEM INTEGRATION & TEST	4/5/00	2/28/00	0	0	0	Antenna
ANTENNA ASSEMBLY	6/53/38	66/6/9	0	12	4	
SIGNAL PROCESSOR ASSY	6/25/99	11/12/98Act	0	ΑN	ΝA	COMPLETE
PREAMP DETECTOR ASSY	10/7/99	3/25/98Act	0	ΑN	NA	COMPLETE
DC/DC CONVERTER (FEI)	7/21/99	2/26/99Act	0	۸N	NA	COMPLETE
A1-1 RECEIVER ASSY	8/56/99	6/22/99	0	82	53	
DROs (Litton)	5/12/99	8/11/98Act	0	NA	NA	COMPLETE
PLO ASSYs	4/29/99	4/27/99	0	86	58	
A1-2 RECEIVER ASSY	6/12/6	5/21/99	0	96	75	
DROs (Litton)	2/1/99	8/31/98Act	0	NA	NA	COMPLETE
S/N 109 AMSU-A2 INSTRUMENT						
INSTRUMENT DELIVERY	8/1/00	00/08/9	0	0	0	
PRE-PLANNED SCHEDULE RESERVE	7/31/00	6/29/00	137	121	136	
	1/18/00	12/13/99	0	0	0	
SHIPPING CONFIGURATION	1/13/00	11/10/99	4	2	0	
SYSTEM INTEGRATION & TEST	12/23/99	11/3/99	0	0	0	Antenna
ANTENNA ASSEMBLY	4/26/99	4/27/99	0	0	4	
SIGNAL PROCESSOR ASSY	66/8/9	10/15/98Act	0	NA	NA	COMPLETE
PREAMP DETECTOR ASSY	6/2/97Act	6/2/97 Act	NA	NA	NA	COMPLETE
DC/DC CONVERTER (FEI)	4/19/99	4/9/99	0	62	73	
A2 RECEIVER ASSY	4/19/99	66/06/4	0	29	41	
DROs (Litton)	2/24/99	8/11/98Act	0	NA	NA	COMPLETE

Page 1

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		AMSU-A 90 DAY WINDOW SCHEDULE	V WINE	S MOC	E S		Щ					
0	Team	Name	Act ID	Cost Acct WP	W A	ā	C	Mar '99	Apr '99	Mar '99 Apr '99 May '99 Jun '99 Jul '99 18 1502001 2 10 10 10 10 10 10	Jun '99	Jul '99
3645						ļ.,	3	10101		4/28	4111111	07611711616
3683	9	S/N 105 A1 Shipping Config	7192	03-7350	2	48 d				4/28		
3684	Q	Ship Final A1 PSR Data Package	7193	03-7350	9	10 d	7	3/24√	4/2			
3693	5	PSR	7199	03-7350	5	P-	5	5		A 4/28		
3933	3	S/N 105 A2 Environmental Test & Shipping Config			-	183 d				4/28		
3985	ت ت	S/N 105 A2 Shipping Config	7280	03-7350	2	48 d				4/28		
3986	o s	Ship A2 PSR Data Package	7281	03-7350	5	10 d	7	3/22	3/31			
3996	r G	PSR	7287	03-7350	10	19	5	*		№ 4/28		
4266		S/N 106 A1 Environmental Test & Shipping Config			ļ	91 d		3/23				
4267	5	S/N 106 A1 Instrument Environmental Accept Test	7346	03-7350	2	61 d		3/23			6/16	
4269	5	S/N 106 A1 EMI/RFI & Mag Field Tests	7350	03-7350	6	3 d	5	3/25 📤 3/29	3/29			
4270	g	Data Review (EMI Tests)	7351	03-7350	9	1.25 d	5	3/30/1	1 ,3/31			
4271	<u>o</u>	Ripple Measurements/ LPT (N)	9520	03-7350	5	1.25 d		3/30 10,3/31	_ ,3/31			
4572 153	ڻ د	Initial Installation Velcro (N)	9521	03-7350	9	2 d		3/31	3/31 0 4/2			
4273	ڻ ص	S/N 106 A1 Random Vib/LPT	7347	03-7350	5	5 d	5	4/2	4/2} □ 4/3			
4274	5	Data Review (Random Vib Tests)	7348	03-7350	2	1.25 d			4/9占4/12			
4275	5	LPT, Post-Vib Inspect & NASA Inspect	7349	03-7350	6	1.25 d	5		4/94/12			
4276	5	S/N 106 A1 Thermal Cycle Setup,Test, Sub CPT				8.5 d			4/12 4/22	22		
4277	5	Thermal Cycle Setup	7352	03-7350	9	10	7		4/12-0-4/13			
4278	5	Thermal CycleTest	7353	03-7350	9	P 9	7		4/13: 13: 4/18			
4279	g	Sub CPT (Thermal Cycle) & AES/DCMC Inspect	7354	03-7350	9	4 d	5		4/19€□ 4/22	22		
4280	5	Data Review (Thermal Cycle)	7355	03-7350	2	70	5		4/23 1 4/23		X (=	
4281	В	S/N 106 A1 Turbo Chamber Refurbishment	7357	03-7350	9	5 d	7		4/12 🖂 4/16			
4282	5	Final Installation Velcro & Tape	9418	03-7350	9	3 9			4/23/A 4/27	4/27		
4283	5	Install Test Blankets (N)	9419	03-7350	9	P			4/28() 4/28	4/28		
4284	ڻ ت	Install Instrument in T/V Cal Fixture (N)	9420	03-7350	6	19			4/28() 4/28	4/28		
4285	g	Chamber & T/V Cal Fixture Setup (N)	9421	03-7350	5	7 d	7		4/28}⊕ 5/4	Ֆ. 15/4		
4286	ŋ	Pre-Calibration T/V Cycle (N)	9422	03-7350	6	4 d	7		5/5	5/5/C 5/8		
4287	o .	S/N 106 A1 Primary Calibration (Turbo)	7359	03-7350	9	32 d	7		. 47	2/9}	% ₽	
Team	s: A,G,H =	Teams: A,G,H = SEIT B = Antenna C = Electronics D = Receiver E = Mech/Thermal F = PLO	-									As of 3/29/99
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		AMSU-A 90 DAY WINDOW SCHEDULE	Y WIND	OW SC	H	DOL	ш			Andrew Company of the		
۵	Team	Name	Act ID	Cost Acct	∀	Dur	Cal	Mar '99 1 8 15222	Apr '99 9 5 12 19 20	May '99 6 3 10 17 24	Mar '99 Apr '99 May '99 Jun' '99 Jul' '99 152229 121926 3 10172431 7 142128 5 121926	Jul '99 5 121926
4288	g	S/N 106 A1 Final CPT (Primary Calibration)	7364	03-7350	10	5 d	 			/9	6/10}\$\$ 6/16	
4289	5	Data Review (Calibration)	7360	03-7350	5	p -	2			<i>(</i> 9	6/10 6/10	
4290	g	S/N 106 A1 Final Assy	7361	03-7350	5	10 d			-	/9	6/10 [6/23	
4291	ဗ	Momentum Compensation Test Setup	9443	03-7350	50	2 d				/9	6/10 @ 6/11	
4292	ပ	Momentum Compensation Test	7356	03-7350	5	2 d	2				6/17]泊 6/18	
4293	g	Weight & CG	7362	03-7350	5	2 d	2				6/21 b∫6/22	
4294	g	Measure/ & Machine Isolation Pads (if required)	7363	03-7350	5	1 d					6/23 1-6/23	
4295	g	S/N 106 A1 Shipping Config	7369	03-7350	2	34 d				9	6/11	
4296	g	Ship Final CPT A1 PSR Data Package	7370	03-7350	2	10 d	7				6/23 - 7/2	2 ⊕ 🗶
4297	g	Klt Release A1 Shipping Config	7371	03-7350	9	5 d				9	6/11 🖂 46/17	
4298	g	Clean Shipping Container	7372	03-7350	9	10					6/18 I 6/18}	
4299	g	Inspect & Purge Shipping Container	7373	03-7350	10	19	5				6/21 1 ,6/21	
4300	5	Clean Instrument	7365	03-7350	9	10					6/24 1 6/24 🕀	\ {
4301	5	Inspect Instrument for Cleanliness	7366	03-7350	10	1 d	5				6/25 6/25 🖒	Ų.
4305	O	Load Unit In Shipping Container (Witness)	7374	03-7350	5	1 d	5	•			6/28 1 6/28 🕂	3∙0
4303	g	Seal & Inspect Shipping Container	7375	03-7350	10	19	5		<u>.</u>		€/29 6/29	₽ 6
4304	g	Accept Tag & Documentation (N)	9522	03-7350	2	20 d					06/9	Π
4476		S/N 106 A2 Environmental Test & Shipping Config				159 d						7/9
4477	g	S/N 106 A2 Instrument Environmental Accept Tests	7433	03-7350	2	133 d				***] 6/2	
4490	5	S/N 106 A2 Random VIb/LPT, Rework, Sub CPT, Inspect				98 d				4/26		,
4493	g	Engineering Evaluation & Rework	9400	03-7350	5	74 d			4/16	⟨ >		
4494	g	2 Axis Vib Test (N)	9389	03-7350	10	3 d	5	-	4/19 🗆 4/21		4	
4495	O	Sub CPT, Post-Vib Inspect & NASA Inspect	7436	03-7350	5	3 d	5		4/22 🗆 4/26		₩	
4497	g	T/V Test Setup (N)	9379	03-7350	9	p 2	9		4/27 0	4/27 🗀 5/4	44	
4498	O	Pre-Calibration T/V Cycle (N)	9380	03-7350	5	4 d	7		/9	5/5 🗆 5/8	\$	
4499	g	S/N 106 A2 Primary Calibration (WC-1)	7446	03-7350	5	15 d	7	***************************************		5/9 5/23		(-)
4200	g	Final CPT (Primary Calibration)	7451	03-7350	5	34	5			5/24 0 5/26	5/26	(J.)
4201	g	Data Review (Calibration)	7447	03-7350	2	1 d				5/24 1 5/24	/24₽	
4502	g	Momentum Compensation Test Setup (N)	6056	03-7350	0	2 d				5/24 0 \$5/25	3/25	
Teams:	: A,G,H =	Teams: A,G,H = SEIT B = Antenna C = Electronics D = Receiver E = Mech/Thermal F = PLO	8						And the second s		Asol	As of 3/29/99

		AMSU-A 90 DAY WINDOW SCHEDULE	AY WINE	S MOC	H		ш				
9	Team	Name	Act ID	Cost Acct	W W	ña	Cal	Mar '99 A	or '99 121926	Mar '99 Apr '99 May '99 Jun '99 Jul '9	Jul '99 28 5 12 1926
4503		S/N 106 A2 Momentum Compensation Test	7443	03-7350	5	2 d	5			5/27 0 5/28 🖒	
4204	O	S/N 106 A2 Weight & CG	7449	03-7350	2	2 d	2			6/1 11 6/2 (}	
4505	G	S/N 106 A2 Final Assy	7448	03-7350	5	79				6/3 6/3	
4506	O	Measure/ & Machine Isolation Pads (if required)	7450	03-7350	6	1 d				6/3 1 6/3	,
4507	g	S/N 106 A2 Shipping Config	7456	03-7350	5	33 d				5/24	6//
4208	O	Ship A2 PSR Data Package	7457	03-7350	5	10 d	7			6/3 - 6/12	< ►
4209	5	Kit Release A2 Shipping Config	7458	03-7350	2	2 d				5/24 🗆 5/28	₽₽
4510	5	Clean Shipping Container	7459	03-7350	9	2 d				6/1 0 6/2	Q
4511	g	Inspect & Purge Shipping Container	7460	03-7350	5	19	7			£/9¦ 1 E/9	
4512	5	Clean Instrument	7452	03-7350	6	19		12		6/4 1 6/4	
4513	U	Inspect Instrument for Cleanliness	7453	03-7350	2	19				<i>L</i> /9 I <i>L</i> /9	
4514	5	Load Unit In Shipping Container (Witness)	7461	03-7350	6	10				8/9 1 8/9	
4515	g	Seal & Inspect Shipping Container	7462	03-7350	6	P				6/9 1 6/9	
4516	5	Accept Tag & Documentation (N)	9523	03-7350	0	20 d				6/10	7/8
4782		SAT & Conformal Coat CCAs - S/N 107 A1				p 29		4] 4/5		
4787	O	SAT,CC & ACCEPT M107 A1 PWR RELAY ASSY	7535	03-2210		5 d	<u> </u>	3/29 🗀 4/2	2 🖒		
4789	O	METSAT 107 A1 ANTENNA DATA SEIT VALIDATED	6727			1 4		3/29 3/29	•		
4790	O	METSAT 107 A1 FIRMWARE CSCI- MODIFIED	6728	02-3510	_	19		3/29 (3/29		2	
4791	O	RELEASE M107 A1 MEM PROM BURN SHOP ORDER	6729	03-2210		1 d		3/30 1 2/30	0	i in	
4792	ပ	BURN M107 A1 MEM PROMS, 2 PART#'S, 1 EA.	6730	03-2210		10		3/31 1 3/31	÷	3	
4793	ပ	INSTALL M107 A1 PROMs in 1331126-11 & INSPECT	7723	03-2210	_	10		√1/4 i 4/1	፟		
4794	0	RECEIVE SEIT CC GO AHEAD	7724			PO		©4/1€	1₹}		
4795	O	CC & ACCEPT 1331126-11	7725	03-2210		2 d		4/2 0	□ 4/5 Û		
4833		S/N 107 A1 Environmental Test & Shipping Config				108 d		4/13			
4834	G	S/N 107 A1 Instrument Environmental Accept Test	. 86	03-7350	5	p 6/	ļ	4/13			
4847	4	Install Velcro for Blankets	623	03-7300	30	2.5 d				(5/19 □ 5/21	
4835	G	EMI Test Setup	9444	03-7350	0	P		4/13	4/13 14/13		-
4836	G	S/N 107 A1 EMI Tests				P		4	4/19	4/28	
4837	g	S/N 107 A1 EMI/RFI & Mag Field Tests	82	03-7350	0	4 d	5	4/	4/19 🗆 🗗 4/22	22 () ()	
Tooms	0	Toame: A G U - CEIT B - Antonna C - Electronice D - Donainer E - Mach Thormal E - DI O	c						į		00/00/6 }0 00
Leams	, C,D,X	-	0								AS Of 3/29/99

		AMSU-A 90 DAY WINDOW SCHEDULE	MIND	OW SC	HEL	JULE				
			Act ID	Cost Acct	ΑW	Dur	Cal 1 8 152	Apr '99 229 5 12 192	Mar '99 Apr' '99 May '99 Jul' '99 Jul' '99 12 12 12 12 12 12 12	Jul '99 8 5 12 1926
1D 4838	G Name	METOP EMI Tests - TA #10	 	03-7350	5	4 d		4/23 🗆 4/28	1,4/28	
4839	5	Data Review (EMI Tests)	81	03-7350	2	1.25 d		4/29	4/29 u 4/30 😘	
4840	5	S/N 107 A1 Random Vib/LPT	85	03-7350	5	5 d 5		4/30	4/30 🗀 5/7{} 😘	
4841	g	Data Review (Random Vib Tests)	48	03-7350	9	1.25 d			5/7 □ 5/10 ∰	
4842	ŋ	LPT, Post-Vib Inspect & NASA Inspect	83	03-7350	01	1.25 d 5			57 🗆 5/10 🕰	
4843	g	Thermal Cycle Setup	88	03-7350	5	1 d 7			5/10 0 5/11 (A)	
4844	ပ	S/N 107 A1 Thermal CycleTest	7.8	03-7350	10	2 pg			5/11 🗀 5/16} 🟠	
4845	5	Sub CPT (Thermal Cycle) & AES/DCMC Inspect	11	03-7350	2	2.5 d 5	-		5/17 🛭 5/19 🐔	
4846	g	Data Review (Thermal Cycle)	9/	03-7350	5	1.25 d			5/19 🏻 5/20	X ♦
4848	9	Install Test Blankets	9446	03-7350	10	1 d			6/15 1 6/15	
4849	g	Install Instrument in T/V Cal Fixture	0447	03-7350	10	1 d			6/15 1 6/15	
4850	ŋ	Chamber & T/V Cal Fixture Setup (N)	9448	03-7350	10	7 P Z	7		6/15 🗀 6/21	21
4851	G	Pre-Calibration T/V Cycle (N)	9449	03-7350	2	4 d	7		6/22 🗆 6/25	6/25
4852	g	S/N 107 A1 Primary Calibration (Turbo)	-	03-7350	6	32 d	7		√}97,5€ ⊏	
4995		SAT & Conformal Coat CCAs - S/N 107 A2				115 d		4/6		
5005	O	BURN A2 M107 MEM PROMS, 2 PART#'S, 1 EA.	6726	03-2210		1 d	£3	£3/31 1,3/31		
2006	O	INSTALL M107 A2 PROMs in 1331126-15 & INSPECT	7726	03-2210		2 d	⊕	⊕4/1 04/2		
5007	O	RECEIVE SEIT CC GO AHEAD	7724			p o		الم م	-	
5008	O	CC & ACCEPT 1331126-15	7727	03-2210		2 d	\$	∰4¦5 0,4/6		
5044		S/N 107 A2 Environmental Test & Shipping Conflg				83 d		4/21		
5045	G	S/N 107 A2 Instrument Environmental Accept Tests	791	03-7350	0	***		4/21		9//
5046	∢	Add Thermal Tape to Instrument	770	03-7300	30	3 d		₹34/21 □ 4/23	4123	
5047	<	Install Velcro for Blankets	788	03-7300	99	2 d		∰4/26 0 4/27	0 ₆ 4/27	
5048	Ø	EMI Test Setup	9451	03-7350	9	1 d		4/26	4/28 1 4/28	
5049	5	S/N 107 A2 EMI/RFI & Mag Field Tests (Includes METOP TA #10)	795	03-7350	2	8 d	5	44/2	4/29	
5050	g	Data Review (EMI Tests)	962	03-7350	2	1.25 d		₽	€ }5/11 0,5/12	
5051	Ø	S/N 107 A2 Random Vib/LPT	792	03-7350	5	2 q	5		∂ 5/12 □ 6 5/19	:
5052	5	Data Review (Random Vib Tests)	793	03-7350	6	1.25 d			€5/19 0,5/20	
5053	Ø	LPT, Post-Vib Inspect & NASA Inspect	794	03-7350	5	1.25 d	5		£15/20 0£5/21	•
		O 10 - 1 Mach Thomas C	4							As of 3/29/99
Teams	A,G,H	Teams: A,G,H = SEIT B = Antenna C = Electronics D = Receiver E = Mecry Infirmal F = PLO	-						in . distriction of the control of t	

		AMSU-A 90 DAY WINDOW SCHEDULE	Y WIND	OW SC	果	DULE	1.1				_
9	Team	Name	Act ID	Cost Acct	WP	Dur	Cal 1 8	r '99 Apr '9 152229 5 12	99 May 1926 3 10	Mar '99 Apr '99 May '99 Jun '99 12 1926 12 192	9261 21 <u>5 82</u>
5054	G	S/N 107 A2 Thermal Cycle Setup, Test, Sub CPT				#####			5/21	11 [
5055	5	Thermal Cycle Setup	797	03-7350	01	1 d	7	••••	€]5/2	¶5/21 ₪ 5/22	
5056	G	Thermal CycleTest	798	03-7350	5	5 d	7		√5/2	√5/22>□ 5/27	
5057	g	Sub CPT (Thermal Cycle)	662	03-7350	5	2.5 d	5	•••••		5/27 🗀 6/2	
5058	5	Data Review (Thermal Cycle)	800	03-7350	9	1.25 d				€6/2 0 , 6/3	
5059	G	T/V Test Setup	9452	03-7350	5	p 2	7			6/3 🗀 6/10	
5060	g	Pre-Calibration T/V Cycle	9453	03-7350	10	4 d	7	5447430P1		6/10 🗆 6/14	4
5061	g	S/N 107 A2 Primary Calibration (WC-1)	803	03-7350	9	15 d	7	7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		♣ 6/14 €	⊐ ₆ 6/29
2909	g	S/N 107 A2 Final CPT (Primary Calibration)	7802	03-7350	9	3 d	2		•	2/9}	2/ 1 /2 □ 6/29
5064	5	S/N 107 A2 Final Assy	7799	03-7350	9	9.25 d		**************************************		6/29	9 🔲 7/13
5065	g	A2 Momentum Compensation Test Setup	9454	03-7350	9	2 d				6/29	1// 0 6
5069	G	S/N 107 A2 Shipping Config	806	03-7350	2	33.5 d				06/9	0
5071	g	Kit Release A2 Shipping Config	808	03-7350	01	5 d				6/9	6/30() 7/8
5426		SAT & Conformal Coat CCAs - S/N 108 A1				*####		45		-	
5427	O	SAT, CC & ACCEPT M108 A1 PWR RELAY ASSY	7539	03-2210	_	10 d					⊐ ,6 /21
5428	O	SAT & ACCEPT METSAT M108 A1 INTERFACE CONV CCAs	8266	03-2210		10 d				67 (21	j6/21
5429	O	SAT & ACCEPT M108 A1 MTR DRIVER CCAs	8342	03-2210		10 d				6/7 🚓 6/21	j6/21
5430	O	SAT, CC & ACCEPT M108 A1 R/D CONV CCAS	7766	03-2210		10 d				6/7	6/21
5432	O	BURN M108 A1 ENGINEERING PROMS	8037	03-2210		2.5 d		45 🗅 4/7			
5652		SAT & Conformal Coat CCAs - S/N 108 A2				*####		4/2			06/30
5653	O	SAT,CC & ACCEPT M108 A2 PWR RELAY ASSY	7540	03-2210		10 d		4/22	2 🖰 5/6	9/	
5654	O	SAT & ACCEPT METSAT M108 A2 INTERFACE CONV CCAS	8267	03-2210		10 d		4/2	4/22 🗁 5/6	9/	
5655	O	SAT & ACCEPT M108 A2 MTR DRIVER CCAs	8343	03-2210		10 d		4/22 □	2 亡 1,5/6	9/	
5656	O	SAT,CC & ACCEPT M108 A2 R/D CONV CCAs	8063	03-2210		10 d		-{}4/22}c	2)5/6	9/	
5657	ပ	SAT & ACCEPT M108 A2 PREAMP	7548	03-2210		10 d		•	4,	.5/24 € 6/8	
5658	O	BURN M108 A2 ENGINEERING PROMS	8036	03-2210		2.5 d		4/2 🗆 4/6	_	▼ <=	
5659	ပ	METSAT 108 A2 ANTENNA DATA SEIT VALIDATED	6731			1 d			⟨⊋	6/22	6/22 u , 6/23
2660	O	METSAT 108 A2 FIRMWARE CSCI- MODIFIED	6732	02-3510		1 d			٠ ئ	6/22	6/22 u , 6/23
5661	O	RELEASE M108 AZ MEM PROM BURN SHOP ORDER	6733	03-2210		1 d		•	4	6/23	6/23 1 6/24
	1	Towns. A G. H SEIT B Antonna C Flortronics D. = Receiver F. = Mech/Thermal F. = PLO	5								As of 3/29/99
	5	.									

5662 C 5663 C 5664 C 5664 C 5665 C 6109 S 6109 C 6370 C 6372 C 6373 C 6375 C 63	Name BURN M108 A2 MEM PROMS, 2 PART#'S, 1 EA. INSTALL M108 A2 PROMS in 1331126-16 & INSPECT	!	Cost Acct WP			Mar '00	00' yeM 00' 70A	ŀ	ŀ
0 0 0 0 0 0 0 0 0	BURN M108 A2 MEM PROMS, 2 PART#'S, 1 EA. INSTALL M108 A2 PROMS in 1331126-16 & INSPECT	Act ID			Dur Cal		- 56	1724317	Jun '99 Jul '99 7 142128 5 12 192
0 0 0 0 0 0 0 0	INSTALL M108 A2 PROMs in 1331126-16 & INSPECT	6734	03-2210		p		4	9	6/24 0,6/25
0 0 0 0 0 0 0		7731	03-2210		1 d		\$		6/25 🗆 6/28
0 0 0 0 0 0	RECEIVE SEIT CC GO AHEAD	7729			р0		\		€/6/28
0 0 0 0 0	CC & ACCEPT 1331126-16	7732	03-2210		2 d		.		6/28 🛭 6/30
0 0 0 0 0	SAT & Conformal Coat CCAs - S/N 109 A1			#	***		27/	5/27	
0 0 0 0	BURN M109 A1 ENGINEERING PROMS	8039	03-2210		2.5 d		2//	5/27 🗀 6/1	
	SAT & Conformal Coat CCAs - S/N 109 A2			#	***		4/19		
	SAT.CC & ACCEPT M109 A2 PWR RELAY ASSY	7544	03-2210		10 d			₩9	
	SAT & ACCEPT METSAT M109 A2 INTERFACE CONV CCAs	8269	03-2210		10 d			- ₩	11
	SAT & ACCEPT M109 A2 MTR DRIVER CCAs	8345	03-2210		10 d			₩9	
	SAT,CC & ACCEPT M109 A2 R/D CONV CCAs	8065	03-2210		10 d			6/8 仕	
	BURN M109 A2 ENGINEERING PROMS	8038	03-2210		2.5 d		4/19 🗆 4/21		*
769 a S	SYSTEMS ENGINEERING & INTEGRATION TEAM	4301		#	****] 5/19	
829 Н	EOS GSE & FIXTURES	4940	10-2110	#	####		4/30		
911 H	FOURTH STE/MOD 1489	9256	10-2110	99	180 d		4/9		
933 н	STE Assembly	9277	10-2110		180 d		4/9		
937 Н	Assembly & Checkout (N)	9281	10-2110		106 d		14/9		
938 H	STE MODS for EOS S/C 1 & T	9282	10-2110	31	175 d		4/30		
941 H	Software Modification (N)	9285	10-2110		111 d		7/4/30		
942 H	Update O & M Manual (N)	9286	10-2110		93 d		14/23		
943 H	Test & Checkout (N)	9287	10-2110		p 96				
H 566	METSAT GSE & FIXTURES	5038	10-3110	#	####		4/2		
1027 H	METSAT BLACK BODY TARGETS & MONITOR	5182	10-3110	4	***		1 4/2		
1040 H	BLACK BODY TARGET SET TEST	5194	10-3110	8	325 d] 4/2		
1047 H	FINAL VERSION O & M MANUAL	8931	10-3110		120 d		<u> </u>		
1080 H	METOP MODIFICATIONS	9292	10-3110	80	****] 5/19	
1081 H	METOP Upgrades - Mod 1489	9293	10-3110	#	*####] 5/19	
1082 H	Procurement (N)	9294	10-3110		211 d		4/9		₽
1084 H	Upgrade Software (N)	9297	10-3110		106 d		4/16	•	Ŷ
Teams: A,G,H = St	Teams: A,G,H = SEIT B = Antenna C = Electronics D = Receiver E = Mech/Thermal F = PLO	9							As of 3/29/99

1085 H 1086 H 1087 H										
	Name	Act ID	Cost Acct	ΑN	Dur Cal		Apr '99 29 5 12 19 26	May '99	Mar '99 Apr '99 May '99 Jun '99 Jul '99 Apr '9	9, Inf 5 12
		9536	10-3110	-	1		4/19	5/14	₽ •	
-	O & M Manual Draft (N)	9298	10-3110		10 d	4	45 - 4/16	Ŷ.		
	O & M Manual Final (N)	9299	10-3110		22.5 d		4/19	61/5	₽••	
1088 H	METOP Accommodation Design Review (N)	9300	10-3110		10 d	7	4.5 4/16	•	4 4	
4796 A	S/N 107 A1 Top Assembly - Integration & Test	2	03-7300	ဆ	119 d		4/14		••••	
4825 A	Ship A1 PER Data Package to NASA	94	03-7100	စ္က	1 d		(∆3/31	₽		
4826 A	Final Assy for 1st (Baseline) CPT	63	03-7300	30	2 d	3/29	3/29 🗅 4/2 祄			
4827 A	AES/ DCMC Inspect	92	03-7300	8	1 d	4	45 14/5	-		
4828 A	TRR - 1st (Baseline) CPT	91	03-7300	8	1 d	4	45 14/5		¥	
4829 A	1st A1 (Baseline) CPT	06	03-7300	93	5 d 5		4/6 - 4/12 C	·		
4830 A	AES/ DCMC Inspect & Verify CPT Test Data	88	03-7300	8	2 d		4/13 04/14	¢		
4831 A	S/N 107 A1 PER	87	03-7100	93	1 d		4/6 1 4/6	4		
5009 A	S/N 107 A2 Top Assembly - Integration & Test	748	03-7300	30	181 d		4/20	0		
5036 A	Ship A2 PER Data Package to NASA	781	03-7100	30	1 d		₽30 €	•		
5037 A	Final Assy for 1st (Baseline) CPT	783	03-7300	30	5 d	3/31	3/31 🗀 🗚			
5038 A	AES/ DCMC Inspect	784	03-7300	8	2 d	A	10 may 18			
5039 A	TRR - 1st (Baseline) CPT	785	03-7300	30	1 d	4	4/5 ا 9/4/9			
5040 A	1st A2 (Baseline) CPT	786	03-7300	30	5 b 5	7	€\4/12 □ 4/16		**************************************	
5041 A	AES/ DCMC Inspect & Verify CPT Test Data	787	03-7300	30	2 d		4/19 u4/20	0.		
5042 A	S/N 107 A2 PER	790	03-7100	30	1 d		4/6 1 4/6 🕾	×		
5440 A	S/N 108 A1 Top Assembly - Integration & Test	7949	03-7300	30	`#####		4.5			
5441 A	Kit Release A1 Top Assy	378	03-7300	8	5 d		4,5 🗆 4/9}			
5442 A	Remove Antenna Panels, Bond Grommet, Install Up Card Cage	127	03-7300	30	3.75 d		4/14 - 4/19	· O		
5443 A	Remove Side Panel, Install Test Panel & Hinge Fixture	124	03-7300	30	1.25 d		4/19 U 64/20	23		
5444 A	Remove Panels, Rec Shelves, Instl Dummy Shelves & Test Panel	88	03-7300	30	1.25 d		4/21 0 4/22	/22		
5445 A	Install Sig Proc Assy(w/o CCAs), Pwr Ctrl Mon & DC Conv(tempor)	121	03-7300	30	1.25 d		4/22 0 4/23	/23		
5446 A	AES/DCMC Inspect Signal Processor	120	03-7300	30	0.63 d	·	4/23 🗆 4/26	4/26		
5447 A	Install A1 Cables	119	03-7300	99	9 q		4/26 🗐 5/3	-13 5/3		
5448 A	AES/DCMC Inspect Cables	118	03-7300	30	0.63 d		2/3	5/3 1,5/3		

		AMSU-A 90 DAY WINDOW SCHEDULE	Y WIND	OW SC	뽓	DOL	Ш			
Q	Team	Name	Act ID	Cost Acct	WP	'n	Cal	Mar '99 1 8 1522	Mar '99 Apr '99 May '99 Jun '99 Jul '99 1 8 15 22 29 5 12 19 26 3 10 17 24 31 7 14 21 28 5 12 19 26	99 Jul 99 1212128
5449	∢	Formal TRR - System Integration Test	117	03-7300	ထ	1.25 d	 -		4/23 🗆 4/26	
5450	∢	System Integration Test Stand-up TRR	116	03-7300	೫	1.25 d			4/26 0 4/27}	
5451	∢	A1 System Integration Test	115	03-7300	8	p6	5		5/3 🗁 6/14	
5452	4	TRR - Antenna Drive Subsystem Test	114	03-7300	စ္က	1.25 d			4/28 U 4/29*4D	
5453	¥	A1 Antenna Drive Subsystem Test	113	03-7300	8	15 d	2		5/14	
5454	4	Conformal Coat Ant Drive & Memory CCAs and Pwr Ctrl Mon	112	03-7300	တ္က	10 d			67 📛 6/21	□_6/21
5455	4	Install CCAs & complete Ant Drive Subsystem Test	Ξ	03-7300	30	1.25 d	2		6/21	6/21 0 , 6/22
5456	∢	Remove Panels & Send for Mirror Bond	8631	03-7300	စ္တ	1.25 d			2/9	6/23 U 6/24 (F)
5457	∢	Remove Dummy Rec Shelves/ Install Flight Recs & Dummy PDA	110	03-7300	90	2.5 d			2/9	
5458	∢	Bend Semi-rigid COAX Cables	109	03-7300	8	0.63 d			2/9	6/25 □ 6/28 ♣ ♠
5459	∢	Fab, Condition, Test & Inspect Semi-rigid COAX Cables	108	03-7300	8	8.75 d		-	G	6/28 - 7/9]*
5460	∢	TRR - System Integration Test	107	03-7300	30	1.25 d			2/9	6/25 🗆 /6/28
5461	4	A1 Receiver Perf, Gain & Offset Tests	106	03-7300	30	7 d	5		9	6/28 🗀 47/8
5666	4	S/N 108 A2 Top Assembly - Integration & Test	717	03-7300	99	#####				7/12
5674	∢	Formal TRR - System Integration, CPT,LPT Tests	729	03-7300	99	1 d		43/31 (23/31	3/31	
5675	4	System Integration Test Stand-up TRR	730	03-7300	99	1 d		₹4/1 1.4/1	4/1	
5676	⋖	A2 System Integration Test	731	03-7300	8	5.5 d	2	(4/2)	{4/2}\\ 6 4/9	
2677	4	TRR - Antenna Drive Subsystem Test	732	03-7300	99	1 d		4	4/7 0 4/8	
5678	4	A2 Antenna Drive Subsystem Test & Momentum Comp Test	733	03-7300	ဓင္တ	p 6	5	-8-	4/9 📇 4/22	
6299	∢	Conformal Coat Ant Drive & Memory CCAs and Pwr Ctrl Mon	734	03-7300	8	10 d			4/22	
2680	∢	Install CCAs & complete Ant Drive Subsystem Test	735	03-7300	8	2 d	5		(5/6 □ 5/10	
5681	٧	Install DC/DC Conv, Temp Pwr Ctrl Mon & Mom Comp.	727	03-7300	ဗ္တ	3.75 d			-5/10 □ 5/14	
5682	∢	AES/DCMC Insp DC Conv, Temp Pwr Ctrl Mon & Mom Comp	728	03-7300	8	1.25 d			5/14 🗅 5/17	
5683	∢	Remove Dummy Receiver Shelf, Install Flight Receiver Shelf	736	03-7300	30	1.25 d			45/17 u ₆ 5/18	
5684	∢	TRR - System Integration Test	737	03-7300	ဧ	1.25 d			5/10 ₂ 0 5/11	
5685	∢	A2 Receiver Perf, Gain & Offset Tests (T&S Flight PDA)	738	03-7300	8	3.5 d	2		′5/18 □ , 5/24	
5686	∢	Add Thermal Tape to Instrument	739	03-7300	8	3 d			5/24-4-5/27,	
5687	¥	Conformal Coat Preamp CCAs	740	03-7300	စ္က	10 d			.5/24 € 6/8	
5688	∢	Connect PDA / Gain & Offset Test	741	03-7300	30	1.25 d	5		6/9" 11 8/9[]}	<i>.</i>
Teams:	A,G,H=	Teams: A,G,H = SEIT B = Antenna C = Electronics D = Receiver E = Mech/Thermal F = PLO	8							As of 3/29/99

		AMSU-A 90 DAY WINDOW SCHEDULE	WINC	OW SC	罢	DULE					
٥	Team	Nате	Act ID	Cost Acct	WP	Dur	Cal 1 8	ar '99 Apr '9 15 2229 5 12 1	9 May '99 1926 3 10 17 24 3	Mar '99	26
6	4	Install DC Conv/Remove Dummy & Install Fit PDA/Fit Check COAX Cable	742	03-7300	99	0.74 d			√9.Û.	(16/9 16/10	
2690	4	Gain & Offset, PRT Calib, & Clock Verification Tests	743	03-7300	99	2.5 d	5		1/9}	र6/10 □ 6/14	
5691	¥	AES/ DCMC Inspect & Verify Test Data	744	03-7300	30	1.25 d			9	-6/14 0 ₆ 6/15	
2695	4	TRR - Evaluation CPT	745	03-7300	30	P t			9	46/14 0 / 6/15	
5693	4	1st A2 Evaluation CPT	746	03-7300	ဓ	2 P S	5		¥	•6/15 □ 6 /22	
5694	∢	Ship A2 PER Data Package to NASA	750	03-7100	8	10				6/22 0 6/23 ▲ 🌓	<u>;</u>
5695	4	Final Assy for 1st (Baseline) CPT	752	03-7300	ဧ	5 d	ļ —			6/22√∰ 26/29	
9699	4	AES/ DCMC Inspect	753	03-7300	8	1 d	<u> </u>			6/29 ₀ iC/62/9	
2695	4	TRR - 1st (Baseline) CPT	754	03-7300	8	1 d				6/29 ₍ 0/290	
2698	4	1st A2 (Baseline) CPT	755	03-7300	ဓ	2 d	5	,		8/20√€□7/8	
2200	4	S/N 108 A2 PER	759	03-7100	႙	1 d				6/30 (17/1	
6123	4	S/N 109 A1 Top Assembly - Integration & Test	2	03-7300	ၕ	####			/9	6/9	
6124	⋖	Kit Release A1 Top Assy	378	03-7300	8	5 d			9	6/9 🗀 🖟/15🖒	
6125	4	Remove Antenna Panels, Bond Grommet, Install Up Card Cage	127	03-7300	9	3.75 d		1		6/16 🗆 6/21🕆	
6126	4	Install A1-2 Receiver(Partial-Feedhorn), Drill, Rivet	125	03-7300	႙	4 d	2			6/21 □ 6/25-介	
6127	∢	AES/DCMC Inspect A1-2 Receiver Mounting	124	03-7300	೫	0.63 d	-			6/25 🗆 / 6/28🖒	
6128	∢	Remove Side Panel, Install Test Panel & Hinge Fixture	123	03-7300	၉	1.25 d				6/28 u 6/29	
6129	⋖	Install A1-1 Receiver(Partial-Feedhorn), Drill, Rivet	88	03-7300	ဧ	3.75 d				<i>-</i> √9// " □"67/9	
6383	4	S/N 109 A2 Top Assembly - Integration & Test	717	03-7300	ဧ	#####		4/15			
6384	<	Kit Parts A2 Top Assy	718	03-7300	8	5 0		4/15 □	4/15 🖂 4/21}		
6385	∢	Remove Antenna Panels, Bond Grommet	720	03-7300	ဓ	1.25 d		4	4/28 0 4/29		
6386	∢	Remove Side Panel, Install Signal Processor (w/o CCA's)	723	03-7300		1.25 d		4	4/29 g 4/30		
6387	<	Install A2 Cables	9434	03-7300	ဗ္က	2 d		4	4/30 🗀 5/4		
6388	4	AES/DCMC Inspect A2 Signal Processor & Cables	724	03-7300	೫	1.25 d			5/4 0 5/5		
6389	4	Install Dummy Preamp Det & Bend Semi-rigid COAX Cables	725	03-7300	೫	1.25 d			5/5 1 5/6	⇔	
6390	∢	Fab, Condition, Test & Inspect Semi-rigid COAX Cables	726	03-7300	႙	2 d			5/7 🗀 5/13	? =	(=
6391	∢	Formal TRR - System Integration, CPT,LPT Tests	729	03-7300	၉	1.25 d			5/4 0 5/5		
6392	∢	System Integration Test Stand-up TRR	730	03-7300	ၕ	p r			5/5 1 5/6		
6393	4	A2 System Integration Test	731	03-7300	႙	p 2	5		5/6 <equation-block></equation-block>		
Toame	HO	Toome: A G H - SEIT R - Antenna C - Flactronics D - Baceiver F = Mech/Thermal F = PLO	6							As of 3/29/99	66/
	5 2	-	,								

10 10 10 10 10 10 10 10			AMSU-A 90 DAY WINDOW SCHEDULE	Y WIND	OW SC	H	DULE					
A		Toom	Nome	Act ID	Cost Acct	₩			Mar '99 A 8 15 22 29 5	kpr '99 12 19 26	May '99 3 1017243	Jun '99 Jul '99 7 142128 5 12 1926
A Conformation Subsystem Test & Morner full, Comp Test 734 63-200 30 11 d is some than the subsystem Test & Morner full, Morner &		A	TRR - Antenna Drive Subsystem Test	732	03-7300	30	1.25 d			2/6		Þ
A Conformal Coad Ant Divise & Mannoy CoAd and Pour Cut Man 734 057300 0 10 d 6 622 (\$\frac{\pi}{\pi}\$) 616 (\$\frac{\pi}{\pi}\$) A Insiglat COAd & Corrulo (CAR & Corrulo & Monney Educy) Stably Stein Test 728 057300 30 126 d 6 662 (\$\frac{\pi}{\pi}\$) 662 (\$\	6395	4	A2 Antenna Drive Subsystem Test & Momentum Comp Test	733	03-7300	8		2	•		5/17	6/2
A Insignal CODA & Compile Ant Direy Subsystem Teat 725 03-7300 01 28 d 6 <td>9629</td> <td>4</td> <td>Conformal Coat Ant Drive & Memory CCAs and Pwr Ctrl Mon</td> <td>734</td> <td>03-7300</td> <td>99</td> <td>10 d</td> <td></td> <td></td> <td></td> <td>6/2</td> <td>11:</td>	9629	4	Conformal Coat Ant Drive & Memory CCAs and Pwr Ctrl Mon	734	03-7300	99	10 d				6/2	11:
A AESDCAKC Inspire Core, Temp Pair Cit Mone & Momeantum Comp. 728 03-7300 30 1.25 d	6397	A	Install CCAs & complete Ant Drive Subsystem Test	735	03-7300	ၕ	2.5 d	ري د				6/22 (} 4 6/24
A AESOCAAC Intsp DC Cort v. Temp Part Clift Non & Mom Comp 728 03-7300 30 1.25 d 9 678 d/G A A Tittle System integration Test 730 03-7300 30 1.25 d 9 678 d/G B A Tittle System integration Test 737 02-7300 30 1.25 d 9 672 d 65 d 672 d 65 d 672 d 65 d 672 d	6398	A	Install DC/DC Conv, Temp Pwr Ctrl Mon & Momentum Comp.	727	03-7300	8	1.25 d		*****			6/25 C[_6/28
A Figure Dummy Receiver Shell, Install Flight Receiver Part, Square University and Antenna Assy 777 067-2500 91 45 d 5 65 c 50 c	6399	A	AES/DCMC Insp DC Conv, Temp Pwr Ctrl Mon & Mom Comp	728	03-7300	ၕ	1.25 d					6/28 4/6/29
A A TRR- System Integration Test 737 057-7300 30 1.55 d 6 50 p A A Z Pieceiver Pert, Gain & Otiset Tests (TKS Flight PDA) 738 03-7300 30 4.5 d 5 6 50 A B SAN 108 A1 Antenna Assy 58 03-3200 175 d 14.13 600 C B Antenna Assy 29 03-3200 112 d 5 4/13 600 C B Antenna Assy 112 d 30 03-3200 12 d 3 4/13 600 C B Antenna Assy 112 d 3 4 5 4/13 600 C B Antenna Assy 12 d 3 03-3200 2 2 d 4 4/13 6 B Onlith* Divisit Send Were Bonds 39 03-3200 2 2 d 4 4 1 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 <th< td=""><td>6400</td><td>A</td><td>Remove Dummy Receiver Shelf, Install Flight Receiver Shelf</td><td>736</td><td>03-7300</td><td>စ္က</td><td>1.25 d</td><td></td><td></td><td></td><td></td><td>6/29 4/6/30</td></th<>	6400	A	Remove Dummy Receiver Shelf, Install Flight Receiver Shelf	736	03-7300	စ္က	1.25 d					6/29 4/6/30
A AZP Receiver Perf. Gain & Otiset Tests (T&S Flight PDA) 738 03-200 34 d 5 41/3 600-00-00-00-00-00-00-00-00-00-00-00-00-	6401	A	TRR - System Integration Test	737	03-7300	8	1.25 d					6/25 🗁6/28
B SNN 1098 A1 Antienma Assy 558 103-2000 20 Gardon 1413 A113 B SNN 1098 A1 Antienma Assy 3 03-3200 11 2d 1413 1714 1714 1	6402	4	A2 Receiver Perf, Gain & Offset Tests (T&S Flight PDA)	738	03-7300	၉	4.5 d	5				8/ <i>1</i> 5CD 0E/9
B SIN 106 A1 Antenna Assy 3 0.3-3200 12 d 413 413 B Antenna Pange Testing & Final Assy 29 0.3-3200 1 12 d 412 d 413 B Subassy Pattern Test 39 0.3-3200 20 3 d 5 44 D 42 B Uvarily all Torque & Add Wet Bends 389 0.3-3200 20 2 d 5 44 D 45 44 D 45 B Varily all Torque & Add Wet Bends 389 0.3-3200 20 2 d 5 44 D 47 69 B SAN 109 A1 Antenna Assy 39 0.3-3200 2 d 5 44 D 47 69 B Ansembly 30 0.3-3200 2 d 5 417 D 417	5356	8	S/N 108 A1 Antenna Assy	228	03-3200		343 d			4/13		
B Anntenna Range Testing & Final Assy 29 03-3200 11 33 d 5 4/13 B Subassy Pattern Test 392 03-3200 10 3 d 5 4/40² B Dnill/Pin Drive Motors, Install Warmloadts, Inspect 389 03-3200 2 d 5 4/10² 4/10² B Verify all Torque & Add Wei Bends 388 03-3200 2 d 5 4/10² 6 B Final Assy, Insp. NASA Insp 388 03-3200 2 d 5 4/10² 6 B Final Assy Partern Ass 380 03-3200 2 d 5 4/10² 6 B Assembly 393 03-3200 2 d 5 4/10² 6 B Install Tube Brackets & Align Cube 391 03-3200 2 d 5 4/10² 6 B Install Mull Align Reliectors & Inspect 395 03-3200 2 d 5 4/10² 6 4/10² 6 B Install Mull Align Reliectors & Inspect	5401	80	S/N 108 A1 Antenna Assy	3	03-3200	20	157 d			4/13	7	-
B Subbassy Pattern Test 392 03-3200 11 33 d 5 45 a 401 B DrilliPin Drive Motors, Instail Warmloads, Inspect 390 03-3200 20 2 d 5 45 a 401 B Vorify all Torque & Add Wet Bends 389 03-3200 2 d 5 45 a 401 B Final Assy, Insp. NASA Insp. 389 03-3200 2 d 5 45 a 404 B SAN 109 A1 Antenna Assy 3 03-3200 2 d 5 417 a 421 B SAN 109 A1 Antenna Assy 3 03-3200 2 d 5 417 a 421 B Assembly 3 03-3200 2 d 5 417 a 21 B Assembly 3 03-3200 2 d 5 4 a a 12 a 12 B Install Tube Brackets & Align Cube 39 03-3200 2 d 5 4 a a 12 a 12 B Install Valign & Pine Feedtorns & Inspect 39 03-3200 2 d 5 4 a a 12 a 12 B Antenna	5409	80	Antenna Range Testing & Final Assy	53	03-3200		112 d			□ 4/13		-
B Drill/Pin Drive Motors, Install Warmloads, Inspect 399 03-3200 20 2 5 4% Graft B Vorify all Torque & Add Wat Bends 389 03-3200 20 2 5 46 Graft 69 B Final Assy, Insp. NASA Insp. 389 03-3200 2 5 47 Graft 69 B SAN 109 A1 Antenna Assy 3 03-3200 2 5 47 Graft 69 B SAN 109 A1 Antenna Assy 3 03-3200 2 4 5 47 Graft 69 B Assembly 3 03-3200 2 5 45 Graft 69 B Install Torbe Brackets & Align Cube 39 03-3200 2.5 d 5 45 Graft 67 B Install Align & Pin Feedhorns & Inspect 39 03-3200 2.5 d 5 45 Graft 67 B Install Marma Range Testing & Final Assy 1 03-3200 2.5 d 5 415 Graft 67 416 Graft 67	5411	8	Subassy Pattern Test	392	03-3200	=	33 d	5		1/2}·		
B Vonity all Torque & Add Wet Bends 389 G3-3200 20 2 d 5 4/12 d_4/13 B Final Assy, Insp. NASA lisp 388 G3-3200 2 d 5 d 4/12 d_4/13 69 B SIN 109 A1 Antenna Assy 39 G3-3200 2 m### 4/12 d_4/13 69 B SIN 109 A1 Antenna Assy 30 G3-3200 25 d 5 4/12 d_4/1 69 B Assembly 30 G3-3200 2.5 d 5 4/13 d_4/1 6/3 B Install Tube Brackets & Align Cube 397 G3-3200 2.5 d 5 4/13 d_4/1 6/3 B Install Divit & Bond Wire Mounts/Grommels 395 G3-3200 2.5 d 5 4/13 d_4/1 6/3 B Install All All File Cross & Inspect 394 G3-3200 2.5 d 5 4/13 d_4/1 6/3 B Install Mambard Tibe Bends Alia data All edge Alia data All edge Alia data All edge Alia data All edge Alia data All edge <th< td=""><td>5412</td><td>8</td><td>Drill/Pin Drive Motors, Install Warmloads, Inspect</td><td>390</td><td>03-3200</td><td>20</td><td>3 d</td><td>5</td><td>45</td><td>147</td><td></td><td></td></th<>	5412	8	Drill/Pin Drive Motors, Install Warmloads, Inspect	390	03-3200	20	3 d	5	45	147		
B Final Assy, Insp, NASA lnsp 386 03-3200 2 5 4/12 a 4/13 B SAN 109 A1 Antenna Assy 30 03-3200 1#### mm 69 B SAN 109 A1 Antenna Assy 30 03-3200 2 44### mm 69 B Assembly 30 03-3200 12.5 d 5 45 a 4/2 i 69 B Assembly 30 03-3200 2.5 d 5 46 a 4/2 i 69 B Install Ube Brackets & Align Cube 397 03-3200 2.5 d 5 46 a 4/2 i/2 69 B Install Align & Pin Feedhorns & Inspect 394 03-3200 2.5 d 5 4/13 a 4/12 i/2 69 B Install/Align Reliectors & Inspect 394 03-3200 2.5 d 5 4/13 a 4/12 i/2 69 B Antenna Hange Testing & Final Assy 394 03-3200 2.5 d 5 4/12 a 4/12 i/2 69 B Antenna Hange Testing & Final Assy inspect 394 03-3200 </td <td>5413</td> <td>8</td> <td>Verify all Torque & Add Wet Bends</td> <td>389</td> <td>03-3200</td> <td>50</td> <td>2 d</td> <td>2</td> <td>8/R</td> <td>0.44/9}≻</td> <td></td> <td></td>	5413	8	Verify all Torque & Add Wet Bends	389	03-3200	50	2 d	2	8/R	0.44/9}≻		
B S/N 109 Al Antenna Assy 558 03-3200 20 #### ■ 699 B S/N 109 Al Antenna Assy 30 03-3200 20 #### ■ 69 B Assembly 30 03-3200 2.5 d 5 45 m/l 2 ft/l 60 B Install Tube Brackets & Align Cube 397 03-3200 2.5 d 5 45 m/l 2 ft/l 60 B Install Drive Assemblies 396 03-3200 2.5 d 5 47 m/l 2 ft/l 60 B Install Drive Assemblies 11.25 d 5 47 m/l 2 ft/l 60 B Install Drive Assemblies 1394 03-3200 2.5 d 5 47 m/l 2 ft/l B Install Marmloads Inspect 393 03-3200 2.5 d 5 47 m/l 2 ft/l B Antenna Hange Testing & Final Assy 392 03-3200 2.5 d 5 47 m/l 2 ft/l B Oritifyen Drive Motors, Install Warmloads, Inspect 399 03-3200 2.5 d 5 4	5414	8	Final Assy, Insp, NASA Insp	388	03-3200	20	2 d	S.	4/A	2 0,4/13		
B SAN 109 A1 Antenna Assy 3 03-3200 20 ##### ##### 6/9 B Assembly 30 03-3200 12.5 d 5 4/5 □ 4/7 ⟨?/↑ 4/2 □ 4/12 ⟨?/↑ B Install Tube Brackets & Align Cube 395 03-3200 2.5 d 5 4/5 □ 4/7 ⟨?/↑ 4/2 □ 4/12 ⟨?/↑ B Install Tube Brackets & Align Cube 395 03-3200 1.25 d 5 4/12 □ 4/12 ⟨?/↑ 6/9 B Install Align & Pin Feedhorms & Inspect 395 03-3200 2.5 d 5 4/15 □ 4/12 ⟨?/↑ 6/9 B Install/Align Relifectors & Inspect 393 03-3200 2.5 d 5 4/15 □ 4/2 ⟨./↑⟩ B Antienna Range Testing & Final Assy 29 03-3200 11 26 d 5 4/12 □ 4/2 ⟨./↑⟩ B Subassy Patienn Test 392 03-3200 20 2.5 d 5 4/12 □ 4/2 ⟨./↑⟩ B Verify all Torque & Add Wet Bends 396 03-3200 20 2.5 d 5 5/27 □ 6/2 ⟨./↑⟩	6005	8	S/N 109 A1 Antenna Assy	558	03-3200		####					6/9
B Assembly 30 03-3200 12.5 d 5 45 □ 477 ⟨↑⟩ B Install Tube Brackets & Align Cube 39F 03-3200 2.5 d 5 45 □ 477 ⟨↑⟩ B In Dunit & Bond Wire Mounts/Grommets 396 03-3200 1.25 d 5 4712 □ 4/13 ⟨↑⟩ B Install Align & Pin Feedhorns & Inspect 394 03-3200 2.5 d 5 4/15 □ 4/13 ⟨↑⟩ B Antenna Range Testing & Final Assy 393 03-3200 3.75 d 5 4/15 □ 4/13 ⟨↑⟩ B Antenna Range Testing & Final Assy 29 03-3200 3.75 d 5 4/16 □ 4/21 ⟨↑⟩ B Chill/Pin Drive Motors, Install Warmloads, Inspect 392 03-3200 2 5 5 4/16 □ 4/21 ⟨↑⟩ B Chill/Pin Drive Motors, Install Warmloads, Inspect 390 03-3200 2 5 5 5/27 □ 6/2 ⟨↑⟩ B Verify all Torque & Add Wet Bends 399 03-3200 2 5 5 6/2 □ 6/7 ⟨↑⟩ B A1 Antienna Final Assy, Insp. NASA Insp <	6061	8	S/N 109 A1 Antenna Assy	က	03-3200	20	*####					6/9
B Install Tube Brackets & Align Cube 397 03-3200 2.5 d 5 4 5 □ 4/7 ⟨⟨⟨⟩⟩ B ID Unit & Bond Wire Mounts/Grommets 396 03-3200 2.5 d 5 4/12 □ 4/13 ⟨⟨⟨⟩⟩ B Install Drive Assemblies 394 03-3200 2.5 d 5 4/13 □ 4/13 ⟨⟨⟨⟩⟩ B Install/Align Reflectors & Inspect 393 03-3200 2.5 d 5 4/16 □ 4/21 ⟨⟨¬⟩⟩ B Antenna Range Testing & Final Assy 29 03-3200 1 25 d 5 4/16 □ 4/21 ⟨¬⟨¬⟩⟩ B Subassy Pattern Test 392 03-3200 11 25 d 5 4/12 □ □ 5/2 (¬¬⟩⟩ B Verify all Torque & Add Wet Bends 399 03-3200 2 5 d 5 5/27 □ 6/2 ⟨¬¬⟩⟩ B Verify all Torque & Add Wet Bends 389 03-3200 2 5 d 5 6/2 □ 6/7 ⟨¬¬⟩ B Al Antenna Final Assy, Insp. NASA Insp. 389 03-3200 2 5 d 5 6/2 □ 6/7 ⟨¬¬⟩	6063	8	Assembly	9	03-3200		12.5 d		45	4	21	
B ID Unit & Bond Wire Mounts/Grommets 396 03-3200 2.5 d 5 4/12 ft 4/13 €/↑ B Install Drive Assemblies 395 03-3200 1.25 d 5 4/12 ft 4/13 €/↑ B Install Align & Pin Feedhorms & Inspect 393 03-3200 2.5 d 5 4/13 □ 4/16 €/↑ B Antenna Range Testing & Final Assy 29 03-3200 11 25 d 5 4/12 □ 4/2 €/↑ B Subassy Pattern Test 392 03-3200 11 25 d 5 4/12 □ 7/2 €/↑ 6/9 B Verify all Torque & Add Wet Bends 390 03-3200 20 3.75 d 5 5/27 □ 6/2 ∱/↑ B Verify all Torque & Add Wet Bends 389 03-3200 20 2.5 d 5 6/2 □ 6/7 ∱/↑ B At Antenna Final Assy, Insp. NASA Insp. 389 03-3200 20 2.5 d 5 6 6/7 □ 6/7 ∱/↑	6064	В	Install Tube Brackets & Align Cube	397	03-3200		2.5 d	r.	4.5		···yt	
B Install Drive Assemblies 395 03-3200 1.25 d 5 4/12 u 4/13 ि B Install/Align Reflectors & Inspect 394 03-3200 2.5 d 5 4/13 u 4/16 ि B Antenna Range Testing & Final Assy 29 03-3200 #### 4/16 u 4/21 ि B Antenna Range Testing & Final Assy 392 03-3200 11 25 d 5 B Subassy Pattern Test 392 03-3200 11 25 d 5 4/12 u 4/16 ि B Chill/Pin Drive Motors, Install Warmloads, Inspect 390 03-3200 20 2.5 d 5 5/27 u 6/2 √↑ B Al Antenna Final Assy, Insp. NASA Insp 389 03-3200 20 2.5 d 5 6 6/7 u 6/9 √↑	6065	В	ID Unit & Bond Wire Mounts/Grommets	396	03-3200		2.5 d	2	8/4	<u> </u>	æ	
B Install, Align & Pin Feedhorns & Inspect 394 03-3200 2.5 d 5 4/13 □ 4/16 ⊕ B Antenna Range Testing & Final Assy 1393 03-3200 11 25 d 5 4/16 □ 4/21 ⊕ B Antenna Range Testing & Final Assy 1392 03-3200 11 25 d 5 4/12 □ 4/21 ⊕ B Subassy Pattern Test 390 03-3200 20 3.75 d 5 5/27 □ 6/2 ⊕ B Verify all Torque & Add Wet Bends 389 03-3200 20 2.5 d 5 5/27 □ 6/2 ⊕ B A1 Antenna Final Assy, Insp, NASA Insp A389 03-3200 20 2.5 d 5 67 □ 6/9 ⊕	9909		Install Drive Assemblies	395	03-3200		1.25 d		4	2 0 4/13	୕	
B Antenna Range Testing & Final Assy 29 03-3200 #### 4/16 □ 4/21 □ 1 B Antenna Range Testing & Final Assy 29 03-3200 11 25 d 5 4/22 □ 5/2 □ 5/2 □ 6/9 B Subassy Pattern Test 392 03-3200 20 3.75 d 5 4/22 □ 5/2 □ 5/2 □ 5/27 □ 6/2 □ 5/7 □ B Drill/Pin Drive Motors, Install Warmloads, Inspect 390 03-3200 20 2.5 d 5 6/2 □ 6/7 □ B Verify all Torque & Add Wet Bends 389 03-3200 20 2.5 d 5 6/2 □ 6/7 □ B A1 Antenna Final Assy, Insp. NASA Insp. 388 03-3200 20 2.5 d 5 67 6/7 □ 6/9 □	2909	8	Install, Align & Pin Feedhorns & Inspect	394	03-3200		2.5 d		4	13 🗆 4/16	(
B Antenna Range Testling & Final Assy 29 03-3200 11 25 d 5 4/22 6/9 B Subassy Pattern Test 392 03-3200 11 25 d 5 4/22 5/26 1/3 B Drill/Pin Drive Motors, Install Warmloads, Inspect 390 03-3200 20 3.75 d 5 5/27 5/27 5/27 1/3 B Verify all Torque & Add Wet Bends 389 03-3200 20 2.5 d 5 67 6/7 1/3 B A1 Antenna Final Assy, Insp. NASA Insp 388 03-3200 20 2.5 d 5 67 6/7 1/3	8909	↓_	Install/Align Reflectors & Inspect	393	03-3200		3.75 d		4	/16 🗀 4/	21 (}^{2}	
B Subassy Pattern Test 392 03-3200 11 25 d 5 4/22 15 6/2 15 4/22 15	6909	 	Antenna Range Testing & Final Assy	59	03-3200		####			4/22		6/9
set 390 03-3200 20 3.75 d 5 5/27 □ 6/2 ⟨√⟨⟩ 389 03-3200 20 2.5 d 5 6/7 □ 6/9 ⟨√⟨⟩	6070	4	Subassy Pattern Test	392	03-3200		25 d	2		4/22		
389 03-3200 20 2.5d 5 67 0 677 (i) 87 03 03-3200 20 2.5d 5 67 0 679 (ii) 87 0 03 03 03 03 03 03 03 03 03 03 03 03 0	6071	80	Drill/Pin Drive Motors, Install Warmloads, Inspect	390	03-3200		3.75 d		•••••		5/27 C	⊐ 6/2 (}√}
388 03-3200 20 2.5 d 5 67 \pm 68 \pm 67 \pm 68 \pm 67 \pm 68 \pm 69 \pm 67 \pm 69 \pm 60 \pm	6072	<u> </u>	Verify all Torque & Add Wet Bends	389	03-3200		2.5 d	-			6/2	677 ∰.
R - 01.0 40	6073	ļ	A1 Antenna Final Assy, Insp, NASA Insp	388	03-3200		2.5 d					17 0 6/9 (1/1)
				0+								As of 3/29/99

		AMSU-A 90 DAY WINDOW SCHEDULE	WIND	OW SC	黑	DG L	ш		
0	Team	Name	Act ID	Cost Acct	WP	Dū	Cal	Mar '99 1 8 15222	Mar '99 Apr '99 May '99 Jun '99 Jul '99 1 8 152229 5 12 1926 3 10 1724 3 1 7 142 128 5 12 1926
9009		S/N 109 A1 Antenna Subassy, Machined	_	03-1200	80	70.5 d] 4/5
6013	Э Е	Complete/Identify Structure (MAI 60)	532	03-1200		3 d	5	3/29 D	3/31}-⊕
6014	4 E	Final Inspect/ DCMC Inspect	531	03-1200		2.5 d	2	4/1	4/1 🗆 4/5 祄
6078	8 0	METSAT A1 ANTENNA SPARES	8165			#####			7/12
1609	80	A1 Drive Assys, Reflector (QTY 1) (SPARE)	8178	03-3200		#####			7/12
6093	6	Assemble	8180	03-3200		P 09		3/15	2/9
6094	8	Troubleshoot (N)	9437	03-3200		25 d		3/15	4/16
6095	15 B	Install Resolver & Motor, Inspect	8181	03-3200		5 d			4/19 🗆 4/23
9609	9 9	Bond	8182	03-3200		5 d			4/26 🖂 4/30
2609	17 B	Wire	8183	03-3200		10 d			5/3 ====================================
8609	89 B	Inspect & DCMC Insp Wiring	8184	03-3200		5 d			5/17 🗆 5/21
6609	B 6	Install Cover/Torque, ID Assy	8185	03-3200		5 d			5/24 🗀 5/28
6100	8	Inspect/DCMC Inspect	8186	03-3200		5 d			6/1 🗆 6/7
163	80	Test	8187	03-3200		#####			6/8
6102	2 B	Electrical Test & TRR	8188	03-3200		7.5 d			6/8 - 6/17
6103	33 BB	QE/Inspection Verify Test Data	8189	03-3200		2.5 d			6/17 🗆 6/21
6104	8	Random Vibration Test & TRR	8190	03-3200		1.25 d	5		6/22 0 6/23
6105	5 B	Verify Motor Operation .	8191	03-3200		8.75 d			6/23 7/6
6261	E0	S/N 109 A2 Antenna Assy	629	03-3200		451 d			4/27
6303	B	S/N 109 A2 Antenna Assy	694	03-3200	21	74 d			4/27
6305	8	Assembly	269	03-3200		42 d] 4/2
6309	8	Install Drive Motor, Reflector, Diplexer	701	03-3200		3 9	ည	3/31 0 4/2	1 4/2}
6310	6	Antenna Range Testing & Final Assy	702	03-3200	<u> </u>	17 d		4,7	5 4/27
6311	- B	Subassy Pattern Test	703	03-3200	22	10 d	2	4	5 🚍 4/16
6312	2 B	Pin Drive Motor & Install Warmload	704	03-3200	21	2 d	S.		4/19 🏻 4/20
6313	3 B	Inspect Antenna Assy	705	03-3200	21	19	2		4/21 4/21
6314	4 B	Bond Wiremounts & Identify	206	03-3200	21	2 d	2		4/22 0 4/23
6315	5 B	Final Assy, Insp, NASA Insp	707	03-3200	21	2 d	2		4/26 0 4/27
6325	80	METSAT A2 ANTENNA SPARES	8091			#####			[] 6/3
Tear	ns: A,G,H	Teams: A,G,H = SEIT B = Antenna C = Electronics D = Receiver E = Mech/Thermal F = PLO	=						As of 3/29/99
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		AMSU-A 90 DAY WINDOW SCHEDULE	/ WINC	OW SC	里	DULE					
0	Team	Мате	Act ID	Cost Acct	WP	Dur Cal		39 Apr '9	9 May '99	Mar '99 Apr '99 May '99 Jun '99 Jul '99 1 8 152229 5 1211926 3 10 172431 7 142128 5 1211926	199 l.
6339	60		8105	03-3200		15	_		4/27		1000
6348	6 0	Test	8009	03-3200		53.5 d			4/27		
6354	æ	Replace Motor in Drive Assy w/KLM Spare (N)	9438	03-3200		20 d	3/15	4/9			
6355	6	Test Drive Assy w/KLM Spare (N)	9439	03-3200		10 d		4/12	□ 4/23		
6356	8	A2 Drive Assy- Final Insp, NASA Insp	8120	03-3200		1.25 d		4/2	4/26 0 4/27		
6357	60	A2 Compensator Assy (QTY 1) (SPARE)	8249	03-3200		####				2/9	
6329	8	Receive Reworked Bearings from Vendor (N)	9518	03-3200		1 d			(∆4/30		
6360	æ	Assemble Compensator Assys (Less Motors)	8251	03-3200		2 q			5/3 🗆 5/7		
6361	8	Torque Test	8252	03-3200		1.25 d			5/10 0 5/11		
6362	8	Complete Motor Assembly	8253	03-3200		6.25 d	-		5/11 5/19	6	
6363	60	Pre-Vib Performance Test	8254	03-3200		2.5 d			5/19 🛭 5/21	21	
6364	8	QE Data Review	8255	03-3200		1.25 d			5/24 11 5/25	5/25	
6365	8	Vibration Test	8256	03-3200		1 d 5		***************************************	5/25 0 5/26	5/26	
9989	В	Post-Vib Performance Test	8257	03-3200		2.5 d		,	5/26 🗅 5/28	5/28	
6367	В	A2 Compensator Final Inspection & DCMC Inspection	8258	03-3200		2.5 d			5/28	5/28 🗀 6/3	
6251	ပ	S/N 109 A2 DC/DC Conv	699	70-1200		p 9	3/26	6 📋 4/2			
6252	o	Vendor Commit	670	70-1200		1 d		©3/26			Ų•
6253	O	Dock-Stock	671	70-1200		5 d		Ø4/2			
2	٥	RECEIVER SUBSYSTEM	1352			####					7/2
27	۵	RECEIVER SHELF REPORTS (A1-1, A1-2, A2)	5403	03-5200		*###					7/2
31	٥	S/N 107	5407	03-5200	19	p 689		4/2]
32	٥	S/N 108	5408	03-5200	20	601 d				6/18)
33	۵	S/N 109	8452	03-5200		p 09		4/27			2//
5286	۵	S/N 108 A1-1 Receiver Assy	15	03-5200		133 d			4/20		
5288	۵	Final Assemble	173	03-5200	92	110 d		/4/	4/12		
5293	٥	Temperature Test (N)	9474	03-5200		4 d	6	3/29 🗆 4/1			
5294	٥	Install Temp Sensor & Wire Mounts	430	03-5200		2 d 5		4/2 🗆 4/5		€	
5295	٥	AES Insp & DCMC Insp	428	03-5200		p +		4/6 1 4/6		•	-
5296	٥	Wire RF Components	429	03-5200		3 0 5		4/7 🗆 4/9		\{\{\}_{\}}	
Teams:	A,G,H=	Teams: A,G,H = SEIT B = Antenna C = Electronics D = Receiver E = Mech/Thermal F = PLO	12							1 1 1	As of 3/29/99

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₽	Team		Act ID	Cost Acct	d M	, i		Mar '99 Apr '99 May '99 Jun '99 Jul '99	96, unf	96, Inc
5297	_	AES Inspect & DCMC Inspect	8377		<u> </u>		+	2915 1121192613 1101172	431 7 142128	121926
5298	٥	Test & Final Inspection	556	03-5200	**	###		4/12 4/12	•	
2300	٥	Elect Performance Test (ATP)	792	03-5200	07	3 d 5		4/20	<	
5301	٥	Clean & Spot Bond	425	03-5200	-	+-		4/13 0 4/13	• 1/7/}	
2302	۵	S/N 108 A1-1 Receiver Final Insp & DCMC Insp	424	03-5200	ક	1 d		4/20 1 4/20	7) 7	
5859	٥	Major Subs for S/N 109 A1-1 Receiver Assy	45		9	613 d		27/4 67/4		
5896	٥	A1-1 DRO	174	70-1000	-	170 d		4/10		
5899	٥	Receive Reworked -7 DRO from Vendor (N)	9513	70-1000		1 d		4/13 M4/0	-	
2900	۵	Reworked -7 DRO Dock-to-Stock (N)	9514	70-1000		2 d		4/10 0 4/13		
5903	۵	PLO(-3) Integration Plan	9480	03-5225	#	****	3/17			
5904	O	PLO(-3) Bench Test	9481	03-5225	-	P 6	3/17	3/29		
2907	O	PLO(-3) Engr Bench Test (N)	9484	03-5225		D L	3/29	3/29		
5908	۵	PLO (-3) Tooling	9485	03-5225	<u> </u>	15 d	3/22	4/9		
6065 165	۵	Define PLO(-3) Tooling (N)	9486	03-5225	-	8 d		3/31		
5910	۵	Fab Tooling (N)	9487	03-5225		2 d	1 4		•	
5911	۵	Proof PLO(-3) Tooling (N)	9488	03-5225	<u> </u>	2 d			•	
5912	۵	Thermal Modifications	9489	03-5225		30 d	3/23	5/3		
5913	۵	Thermal Design (N)	9490	03-5225		5 d	3/23	3/29	1	
5914	۵	Update Thermal Model (N)	9491	03-5225		10 d	3/30	4/12		
5915	۵	Release A1 Thermal Model (N)	9492	03-5225		5 d		4/13 [5/3		
5916		Mechanical Design (N)	9493	03-5225		5 d	3/23			
5917	٥	Integrate Design and Review (N)	9494	03-5225	-	1 d	4	4/6 I 4/6	•	
5918		Generate & Release Shim ECNs & Drawings (N)	9495	03-5225	-	11 d	3/30	4/13	•	
5919		Fab Shims (N)	9496	03-5225		5 d		4/14 🗀 4/20		
5920	۵	Shop Order & Procedure Modifications	9497	03-5225		3d		4/14 4/16		
5921	۵	Modify A1-1 Receiver Shop Order (N)	9498	03-5225		3 d		4/14 🛭 '4/16		
5922	۵	Modify A1 System Integ Top Level Shop Order (N)	9499	03-5225		2 d		4/14 0 4/15		
5923	۵	Modify A1 System Integ Procedcure (N)	9500	03-5225		p L		4/14 1 4/14		
5924		Modify A1-1 Receiver Shelf Test Procedure (N)	9501	03-5225		2 d		4/14 0 4/15		•
Teams	A,G,H=	Teams: A,G,H = SEIT B = Antenna C = Electronics D = Receiver E = Mech/Thermal F = PLO	13						As	As of 3/29/99

Team Name			DR A-DOMA	-A 90 DAY WINDOW SCHEDULE		1]		
9826 D Autodity At Eleit Teas Strop Ordier (VI) 9802 05 6225 Interest 4 can	9	Team	Name	Act ID	Cost Acct				Apr '99 May '99 Jun '99 Jul '99 See Jul '99 See
GSG D PLOC(3) linegration & Test 98040 05-5220 19410 427 ☐ 554 9827 D Iningaration & Test 85040 157 d 427 ☐ 5540 157 d 9827 D Iningaration Receiver Shelf Texperiature Test (N) 85040 157 d 2.4 427 ☐ 5520 157 d 627 D 560 D 570 D <t< td=""><td>5925</td><td>+</td><td></td><td>9502</td><td>03-5225</td><td></td><td>g</td><td></td><td>4/16 1 4/16</td></t<>	5925	+		9502	03-5225		g		4/16 1 4/16
9282 D D Properties PLO(3) into A 1.1 Receiver Shelf Facey (N) 9504 D0 55220 0 d 421 □ 542 950 D5520 1 d 950 D5520 D552 2 d 950 D5520 D552 1 d 950 D	5926	_	PLO(-3) Integration & Test	9503	03-5225	#	*##		4/21
9583 D Stant 10 Act 1. Receiver Shell Temperature Test (N) 9504 03-5200 157 d 500 9 SPT 9533 D Temperature Assy 15 03-5200 1 47 d 620 9 SPT 927 9533 D Temperature Test (N) 422 03-5200 1 4 d 624 10 <t< td=""><td>5927</td><td>-</td><td>Integrate PLO(-3) into A1-1 Receiver Shelf Assy (N)</td><td>9504</td><td>03-5225</td><td>-</td><td>p o</td><td></td><td></td></t<>	5927	-	Integrate PLO(-3) into A1-1 Receiver Shelf Assy (N)	9504	03-5225	-	p o		
5831 D SW 109 A1-1 Receiver Asay 157 G9-200 1157 d G9-200 157 d G9-200 27 d G9-200 G7 d G9-200 <td>5928</td> <td>ļ</td> <td>Delta A1-1 Receiver Shelf Temperature Test (N)</td> <td>9504</td> <td>03-5225</td> <td></td> <td>p a</td> <td></td> <td>-</td>	5928	ļ	Delta A1-1 Receiver Shelf Temperature Test (N)	9504	03-5225		p a		-
5853 D Fhall Assemble 172 G6-2800 15 Inches 5856 D DHOWkaneputide Attenuator Test 432 03-5200 1 d Age 56-00 1 d Age 15-14	5931	┼	S/N 109 A1-1 Receiver Assy	15	03-5200	-	p /s		6/22
5836 D DROWNaveguide Afternation Teet 432 60,500 1 d Qavis 5837 D Install RF Components 430 63,500 26 d 5 6 minal 5837 D Install RF Components 425 05,500 26 d 56 D 56 D 56 D 570 D 56 D 570 D 571 D 5	5933	-	Final Assemble	173	03-5200		12 d		1/9
5936 D Insalt RP Components 420 03-500 2 d 5 m 4/4/4 d 5937 D ARES Iraps & DCMC Irap 9475 03-500 3 d 3 d 3 d 5 fo D STO 5 fo D STO <td< td=""><td>5935</td><td>↓</td><td>DRO/Waveguide Attenuator Test</td><td>432</td><td>03-5200</td><td></td><td>P</td><td></td><td>⊕4/15</td></td<>	5935	↓	DRO/Waveguide Attenuator Test	432	03-5200		P		⊕ 4/15
5502 D Install Temp Sensor & Wire Mounts 9475 03-8200 2 d 560 G ST7 5508 D AES Insp & DOMC Insp 428 09-8200 2 d 570 D ST1 5508 D Temporature Test (N) 947 09-8200 6 d 572 D ST2 5940 D Temporature Test (N) 429 09-8200 6 d 572 D ST2 5942 D Virte RF Componance Test (N) 429 09-8200 6 d 572 D ST2 5943 D Test & Final inspection 556 09-8200 6 d 572 D ST2 5944 D Test & Final inspection 556 09-8200 6 d 5 d 5 G 5944 D Test & Final inspection 556 09-8200 6 d 5 d 5 G 6 G<	2936	-	Install RF Components	430	03-5200				4/14
5938 D AES Insp & DCMC Insp 426 05-200 2 d 5710 u S/11 5934 D Pre-Test (M) 9475 05-200 6 d 5/12 CD S/19 5944 D VWine HE Components 429 05-200 3 d 5/12 CD S/19 5944 D AES Insp & DCMC Insp 589 05-200 3 d 4/16 CD S/14 6/10 CD S/14 5945 D Test & Final Inspector 589 05-200 3 d 4/16 CD S/14 6/10 CD S/14 <td< td=""><td>5937</td><td>-</td><td>Install Temp Sensor & Wire Mounts</td><td>9475</td><td>03-5200</td><td></td><td>3 d</td><td></td><td>₽/2 🗈 5/2</td></td<>	5937	-	Install Temp Sensor & Wire Mounts	9475	03-5200		3 d		₽/2 🗈 5/2
5940 D Pro-Tost (N) 9476 G9-200 6 d ST/2	5938	ļ.,	AES Insp & DCMC Insp	428	03-5200		2 d		5/10 0 5/11
5940 D Temporature Test (N) 9477 G3-5200 3 d 56 5 </td <td>5939</td> <td><u> </u></td> <td>Pre-Test (N)</td> <td>9476</td> <td>03-5200</td> <td></td> <td>p 9</td> <td>-</td> <td>5/12 🗀 5/19</td>	5939	<u> </u>	Pre-Test (N)	9476	03-5200		p 9	-	5/12 🗀 5/19
5941 D Wine HF Components 429 03-8200 5 d 5 527 — 6/3 5 5 5 5 5 64 □ 6/7 6	5940	-	Temperature Test (N)	9477	03-5200		g q		. 5/24 🗆 5/26
9942 D AES insp & DCMC insp 8360 03-5200 2 d 47 d 64 d □ 6/T 9943 D Tost & Final inspection 556 03-5200 47 d 4/16 □ 4/17 □ 4/17 □ 4/17 □	5941	┞-	Wire RF Components	429	03-5200				5/27 🗀 6/3
9943 D Test & Final Inspection 556 03-5200 47 d A/16 — 96 9944 D DROWkweguide Atlemuator Test (ATP) 172 03-5200 05 2 d 5 4/16 4/19 • 5945 D Elect Performance Test (ATP) 792 03-5200 07 5 d 5 4/16 4/19 • 5946 D Clean & Spot Bond 425 03-5200 07 5 d 5 6/15 0 6/17 0 5946 D Clean & Spot Bond 425 03-5200 07 4 d 6/15 6/17 0 5948 D Major Subs for SM 109 A1-2 Receiver Assy 194 425 75-1000 152 d 6 4/17 6/17 0 5971 D A1-2 DRO A1-2 DRO 16 75-1000 1 d 6/17 0 0 4/17 0 0 0 0 0 0 0 0 0 0 0 <td>5942</td> <td>-</td> <td>AES Insp & DCMC Insp</td> <td>8380</td> <td>03-5200</td> <td></td> <td>2 d</td> <td></td> <td>6/4 🗆 6/7</td>	5942	-	AES Insp & DCMC Insp	8380	03-5200		2 d		6/4 🗆 6/7
5944 D DROW/aveguide Altenuator Test (ATP) T72 03-5200 05 2 d 5 4/16 4/19 • 5945 D Elect Performance Test (ATP) 792 03-5200 07 5 d 5 6/15 <td></td> <td>-</td> <td>Test & Final Inspection</td> <td>556</td> <td>03-5200</td> <td><u> </u></td> <td>P 21</td> <td></td> <td></td>		-	Test & Final Inspection	556	03-5200	<u> </u>	P 21		
p 425 03-5200 2 d 5 6 1 6 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 1 6 1 1 1 6 1 <t< td=""><td><u>. </u></td><td> </td><td>DRO/Waveguide Attenuator Test</td><td>172</td><td>03-5200</td><td>98</td><td></td><td></td><td></td></t<>	<u>. </u>	 	DRO/Waveguide Attenuator Test	172	03-5200	98			
p 425 03-5200 2 d 609 d 6115 □ 6/16 p 424 03-5200 05 4 d 617 □ 6/15 194 5-1000 152 d 4/7 6/17 □ 6/2 9436 75-1000 1 d 6/4/5 7/4 9436 75-1000 2 d 6/4/5 7/4 19 03-5200 ##### 6/4 6/4/5 443 03-5200 2 d d 4/9 □ 4/16 5/7 9478 03-5200 6 d d 4/19 □ 4/21 4/19 □ 4/21 9479 03-5200 5 d f 4/19 □ 4/21 4/19 □ 4/21 100	5945	-	Elect Performance Test (ATP)	792	03-5200	20			6/8 🗀 6/14
p 424 03-5200 05 4 d 609 d 609 d 609 d 609 d 607 m 607 m </td <td>5946</td> <td>- </td> <td>Clean & Spot Bond</td> <td>425</td> <td>03-5200</td> <td></td> <td>2 d</td> <td></td> <td>6/15 0 6/16</td>	5946	-	Clean & Spot Bond	425	03-5200		2 d		6/15 0 6/16
194 609 d 477 477 188 75-1000 152 d 477 694/5 9435 75-1000 2 d 64/5 54/7 19 03-5200 ####; 5/2 5/2 443 03-5200 28 d 5 4/8 5/7 9478 03-5200 6 d 4/9 □ 4/16 4/19 □ 4/21 9479 03-5200 5 d 4/19 □ 4/21 442 03-5200 5 d 4/19 □ 4/21	5947	_	S/N 109 A1-1 Receiver AES Final Insp & DCMC Insp	424	03-5200	92	4 d		
188 75-1000 1 d 152 d 4/7 9435 75-1000 2 d	5948	_	Major Subs for S/N 109 A1-2 Receiver Assy	194	-		P 60		477
9435 75-1000 2 d ©4/5 9436 75-1000 2 d ©4/7 19 03-5200 #### ©4/7 443 03-5200 28 d 5 4/8 9478 03-5200 6 d 4/9 4/19 4/19 9479 03-5200 5 d 4/19 4/19 4/19	5970	ļ	A1-2 DRO	188	75-1000		52 d		47
19 03-5200 #####: ©4/7 ©4/7 186 03-5200 554 d 64 57 443 03-5200 28 d 5 4/8 5/7 9478 03-5200 6 d 4/9 □ 4/16 4/19 □ 4/21 9479 03-5200 5 d 5 d 4/19 □ 4/21 7 H2 103-5200 5 d 5 d 4/12 □ 4/21	597	ļ	Reworked -8 DRO Ship from Vendor	9435	75-1000		P -		⊕ 4/5
19 03-5200 #### #### 5/21 186 03-5200 05 54 d 5 5/7 443 03-5200 28 d 5 4/8 5/7 9478 03-5200 6 d 4/9 — 4/16 442 03-5200 3 d 4/19 = 4/2 5 d 5 d 5 d 5 d	2974		Reworked -8 DRO Dock to Stock	9436	75-1000		2 d		■
186 03-5200 55 4 d 188 5/7 443 03-5200 28 d 5 4/8 9478 03-5200 6 d 4/9 □ 4/16 9479 03-5200 3 d 4/19 □ 4/21 442 03-5200 5 d 5	597	 	S/N 109 A1-2 Receiver Assy	19	03-5200	#	*###		5/21
443 03-5200 28 d 5 ■■■■ 4/8 9478 03-5200 6 d 4/9 □ 4/16 9479 03-5200 3 d 4/19 □ 4/21 442 03-5200 5 d 5 4/22 □ 4/28	5975		Final Shelf Assy	186	03-5200		54 d		79
9478 03-5200 6 d 4/9 — 4/16 9479 03-5200 3 d 4/19 = 4/21 7 5 5 5 5 4/2 = 4/28	298	ļ	ID and Install RF Components	443	03-5200		1		■ 4/8
9479 03-5200 3 d 4/19 a 4/21 442 03-5200 5 d 5 4/22 1 4/28	298%	ļ	Pre-Test (N)	9478	03-5200		p 9		4/9 🗀 4/16
442 03-5200 5 d 5 4/22 - 14/28	298	ļ	Temperature Test (N)	9479	03-5200		3 d		4/19 🗆 4/21
	298	_	Install & Wire Temp Sensor & Wire Mounts	442	03-5200		p	2	
				3					00/06/E to 3V

-		AMINOTA SU DAT WINDOW SCHEDULE		70 00	֡֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	200	İ					-
<u>'</u>	Team	Name	Act ID	Cost Acct WP	WP	Dur	Cal	Mar '99 1 8 1522	Apr '99 29 5 12 1920	May '99 3 3 10 17 24 3	Mar '99 Apr '99 May '99 Jun '99 Jul '99 152229 5121926 310172431 7142128 5121926	Jul '99 5 12 19
5985		AES Insp & DCMC Insp	440	03-5200		1.5 d			4/29 (4/29 0 4/30		
5986	۵	Wire RF Components	441	03-5200		4 d	5		4/30	4/30 🗀 5/6		
2987	٥	AES Insp & DCMC Insp	8381	03-5200		1.5 d			ũ	2/6 0 5/7	• • • • • • • • • • • • • • • • • • •	
5988	Q	Test & Final Inspection	554	03-5200		30.5 d			4/9	5/21	-	
5989	Q	DRO/Waveguide Attenuator Test	185	03-5200	98	2 d	2		4/9 🗆 4/12	•		
2990	٥	Elect Performance Test (ATP)	791	03-5200	07	4 d	5		5	5/10 🗆 5/13		
5991	۵	Clean & Spot Bond	437	03-5200		1.5 d				5/14 🗆 5/17		1
5992	۵	S/N 109 A1-2 Receiver AES Final Insp & DCMC Insp	436	03-5200	92	4 d				5/17 🗆 5/21	•	
6231	٥	S/N 109 A2 Receiver Assy	646	03-5200		121 d] 4/30	2	
6233	۵	Final Assemble	649	03-5200	90	90 d			4/13			
6238	٥	Pre-Test (N)	9515	03-5200		2 d		4/4	4/2 🗆 4/5		•	
6239	٥	Temperature Test (N)	9473	03-5200		2 d		4	46 0 4/7		∜₃	
6240	O	Install & Wire Temp Sensor & Wire Mounts	653	03-5200		2 d	5		1/8 🛭 4/9		₹	
6241	٥	AES Inspect & DCMC Inspect (N)	9357	03-5200		2 d			4/12 0 4/13		₽	
6242	٥	Test & Final Inspection	657	03-5200		p 62] 4/30		
6244	٥	Elect Performance Test (ATP)	793	03-5200	20	8 d	5		4/14 4/23	/23	Ŷ•Ŷ	
6245	۵	Clean & Spot Bond	959	03-5200		2 d			4/26 0 4/27	4/27	₹	
6246	a	S/N 109 A2 Receiver AES Final Insp & DCMC Insp	629	03-5200	92	3 d			4/28	4/28 ₪ 4/30	₹	
603	ш	EOS A1 Reduced Thermal Model	9208	02-4220		15 d		06/6	4/19	6	* #	
604	ш	Revise Reduced TRASYS Model per A1 Thermal Bal Test Results (N)	9509	02-4220		4 d		3/30	3/30 🗀 4/2			
605	ш	Run NETRED to reduce the SINDA Model (N)	9510	02-4220		5 d		4	is □ 4/9			į
909	ш	Compare Reduced & Detailed Models & Adjust If Required (N)	9511	02-4220		p 9			4/12 🔲 4/19	6	· · · · · · · · · · · · · · · · · · ·	
209	ш	EOS A2 Reduced Thermal Model	9512	02-4220		15 d		3/30	4/19	6		
809	ш	Revise Reduced TRASYS Model per A2 Thermal Bal Test Results (N)	9513	02-4220		4 d		3/30	□ 4/2			
609	ш	Run NETRED to reduce the SINDA Model (N)	9514	02-4220		5 d		4	4.5 🗆 4/9			
610	ш	Compare Reduced & Detailed Models & Adjust If Required (N)	9515	02-4220		p 9			4/12 4/19	61		
611	ш	Revise EOS CDRL 103A (N)	9516	02-4220		p 6			4/20	⊐ 4/30		
630	ш	METOP THERMAL	6461	02-4320		909 d					9	9/30
638	ш	METOP A1 Thermal Analysis	9529	02-4320		20 d				5/10	2/9	

		AMSU-A 90 DAY WINDOW SCHEDULE	WINE	OW SC	HE	JULE	
Ō	Team	Name	Act ID	Cost Acct	WP	Dur	Cal 1 8 152229 5 121926 3 10172431 7 145128 5 151956
633	ш	Receive New A1 Heat Loads from NASA (N)	9530	02-4320			
640	Ш	Apportion A1 Loads Amongst Detailed Nodes (N)	9531	02-4320		3 d	5/11 0 5/13
641	Ш	A1 SINDA Temperature Predictions (N)	9532	02-4320		4 d	5/14 🗀 5/19
642	ш	Add Tape to Correct Temps. Out of Limit/Run TRASYS for Rad. Conn	9533	02-4320		3 d	5/20 🗆 5/24
643	ш	Modify Heat Load Apportionment for New Tape Pattern (N)	9534	02-4320		2 d	5/20 0*5/21
644	ш	Run SINDA Model for New Orbital Temperatures (N)	9535	02-4320		3 d	5/25 0 5/27
645	ш	Prepare A1 Reduced Thermal Model Report	6474	02-4320		p 9	. <u> </u>
651	ш	METOP A2 Thermal Analysis	9536	02-4320		37 d	
652	ш	Receive New A2 Heat Loads from NASA (N)	9537	02-4320		P P P	⊚5/10 ●
653	ш	Apportion A2 Loads Amongst Detailed Nodes (N)	9538	02-4320		3 d	6/4 🗆 6/8
654	ш	A2 SINDA Temperature Predictions (N)	9539	02-4320		4 d	6/9 🗆 6/14
655	ш	Add Tape to Correct Temps. Out of Limit/Run TRASYS for Rad. Conn	9540	02-4320		3 d	6/15 🗆 6/17
929	w	Modify Heat Load Apportionment for New Tape Pattern (N)	9541	02-4320		2 d	6/15 0 6/16
657	ш	Run SINDA Model for New Orbital Temperatures (N)	9542	02-4320		3 d	6/18 🗆 6/22
658	ш	Prepare A2 Reduced Thermal Model Report	6469	02-4320		р9	6/23 6/30
662	ш	KLM THERMAL	9401	13-1591		93 d	1 6/3
963	ш	KLM A1 Flight Data Comparison	9402	13-1591		20 d	1 4/2
699	ш	Prepare KLM A1 Orbital Correlation & Thermal Improvement Memo (h	9543	13-1591		p 9	3/26 = 14/2
670	ш	KLM A2 Flight Data Comparison	9408	13-1591		92 d	
629	ш	Delivery of Thermal Models to NASA (N)	9510	13-1591		21 d	3/29
089	Ш	Receive Updated Spacecraft Thermal Model & NASA Input (TBD) (N)	9511	13-1591		1 d	<u>Ø</u> 5/5
681	ш	Aerojet's Assumption of Receipt of S/C Thermal Model (N)	9512	13-1591		P L	<u>Ø5/5</u>
682	ш	Final Correlation of SINDA & TRASYS Models to Flight Data (N)	9425	13-1591		15 d	
683	ш	Final TRASYS End-of-Life Heat Loads (N)	9426	13-1591		10 d	
684	Е	Final SINDA End-ol-Life Temperatures (N)	9427	13-1591		10 d	
685	ш	Final End-of-Life TRASYS Model w/recommended hdwe mods for L/N	9428	13-1591		10 d	5/20
989	В	Final End-of-Life SINDA Temp Solution w/recommended hdwe mods	9429	13-1591		10 d	
3579	E	S/N 105-106 A1 Flight Blanket Assys	6485	03-1410	03	103 d	4/23
3582	Е	Assemble S/N 106 Insulating Blanket Assemblies (N)	9516	03-1410	83	78 d	4/9
Teams:	A,G,H =	Teams: A,G,H = SEIT B = Antenna C = Electronics D = Receiver E = Mech/Thermal F = PLO	16				As of 3/29/99

		AMSU-A 90 DAY	WIND	90 DAY WINDOW SCHEDULE	里	JULE			
9	Team	Name	Act ID	Cost Acct	WP	Dur Cal		229 5 12 19 26 3 10 1	Mar '99
3584	ш	S/N 106 A1 Blanket Assy Bakeout & Buyoff (N)	9517	03-1410	03	10 d		4/12 - 4/23	•
4770	ш	S/N 107 A1 Top Assembly- Mirror Panel Assy's	8215	03-1410		39 d		4/5	
4771	ш	Assemble Mirror Panel Assemblies (1356848 Panel)	8216	03-1410		39 d		-12⁴√5	
4772	ш	Assemble Mirror Panel Assemblies (1331651 & 42 Panel)	8217	03-1410		39 d		■ 1∕24/5	
4773	ш	Assemble Mirror Panel Assemblies (1331650 & 52 Panel)	8218	03-1410	-	39 d			
5417	ш	S/N 108 A1 Top Assembly- Mirror Panel Assy's	8228	03-1410		*####			6/24
5418	w	Assemble Mirror Panel Assemblies (1356848 Panel)	8229	03-1410		#####			6/24
5419	ш	Assemble Mirror Panel Assemblies (1331651 & 42 Panel)	8230	03-1410		#####			6/24
5420	w	Assemble Mirror Panel Assemblies (1331650 & 52 Panel)	8231	03-1410		*####			² 6/24 "
5421	ш	S/N 107-109 A1 METSAT Flight Blanket Assys	7944	03-1410		***	3/22		6/29
5423	ш	Assemble A1 Flight Blanket Assemblies	7946	03-1410		57.5 d	3/	3/31	6/21
5424	ш	A1 Flight Blanket Assy Bakeout & Buyoff	7947	03-1410		6.25 d			6/21 (6/29
5639	ш	S/N 107-109 A2 METSAT Flight Blanket Assys	6518	03-1410		*####	3/22		6/25
5641	ш	Assemble A2 METSAT Flight Blanket Assemblies	8196	03-1410		52.5 d		45	
5642	ш	A2 METSAT Flight Blankel Assy Bakeout & Buyoff	8197	03-1410		6.25 d 5			6/17 二 6/25 分 介
5242	ட	PLO Test Report (F06,F11)	808	03-5210	æ	61 d		4/23	
5807	L	S/N 109 PLO Assy Integration & Test (F14)	819	03-5210	72	143 d		4/27	
5811	u.	Ambient Electrical Test (N)	823	03-5210		2 p 86		1/4/1	♦
5812	ш	PLO Vibration Test (N)	825	03-5210		3 d 5		45 🗆 4/7	
5813	ш	T/V H, M, L Temp Test (N)	824	03-5210		5 d 5		4/8 🗀 4/14	₹,
5814	ட	PLO Thermal/Vacuum Test (N)	826	03-5210		7 b7		4/15 🗀 4/21	•
5815	ш	Final Inspect / Final DCMC Inspect (N)	7786	03-5210		4 d		4/22 🗀 4/27	•
5816	u.	PLO Test Report (-3, F14)	827	03-5210	73	40 d		4/28	
5836	u.	Major Subcontracts - PLO - SPARES	8121			306 d		5/2	
5843	L	vcGDO	8126	70-1000		238 d		5/2	
5846	L	Reworked VCGDO from Vendor (N)	9391	70-1000		10		Ø4/30	
5847	L	Reworked VCGDO Dock-to-Stock (N)	9392	70-1000		3 d		©5/2	
5848	L	PLO Assy Integration & Test (F05,F13, F12) SPARES SET 1	828	03-5210	82	'####			2/1
5850	LL	6.87 Filter, Volt Reg, & VCGDO Integration	830	03-5210		98 d e		5/7	
Теат	Teams: A,G,H	= SEIT B = Antenna C = Electronics D = Receiver E = Mech/Thermal F = PLO	17						As of 3/29/99

		AMSU-A 90 DAY WINDOW SCHEDULE	Y WIND	S MOC	뽔	DOL	ш			
OI	Team	Nan	Act ID	Cost Acct WP	Ν̈́	٥	Cal	Mar '99	Mar '99 Apr '99 May '99 Jun '99 Jul '99 1 8 152229 5 12 19 19 19 19 19 19 19	369 Inc
5851	ட	DRO & PLL Assy Integration	831	03-5210		8 d			5/8	24011
5852	Ŧ	Ambient Electrical Test	832	03-5210		10 d	9		5/18 5/28	
5853	L	T/V H, M, L Temp Test	833	03-5210		11 d	9		5/29 (111	
5854	u	PLO Vibration Test	834	03-5210		1 9	9	***************************************	6/12 1 6/12	
5855	ш	PLO Thermal/Vacuum Test	835	03-5210		18 d	7	-	6/13 [6/30	30
5856	ட	Final Inspect/Final DCMC Inspect	8211	03-5210		1.25 d			7/1 0 7/2	7,2
4475	G	S/N 106 A2 WC-1 Chamber Refurbishment	7444	03-7350	5	5 d	_	45	1 4/9 ▼	
4521	G	S/N 106 SYSTEM TEST PREP & SUPPORT	5288	03-7350	2	173 d				7/15
4523	5	A1 EMI/RFI TEST REPORT	5290	03-7350	9	#####		3/31	(1 4/15 }]
4526	g	PREP FOR & SUPPORT A1 VIB TEST TRR	5293	03-7350	9	2 d		3/30-3		
4527	G	A1 VIB TEST ANALYSIS/TREND DATA	5294	03-7350	9	3.75 d			4/9 - 4/14 • 4/4	۷.
4528	9	A1 VIB TEST REPORT	5295	03-7350	2	15 d				· <-
4530	g	A2 VIB TEST ANALYSIS/TREND DATA	5297	03-7350	2	93 d				
4531	_O	A2 VIB TEST REPORT	5298	03-7350	9	p 09			5/14	. ⟨-
4532	5	PREP FOR & SUPPORT A1 AMB THERMAL CYCLE TESTS TRR	5299	03-7350	9	3 d		- 4 .5	5 🕁 4/7	
4533	g	A1 THERMAL CYCLE TREND DATA	5300	03-7350	5	6.25 d			4/19	۲-
4536	5	PREP FOR & SUPPORT AT THERMAL VAC CALIB TESTS TRR	5303	03-7350	9	5 d				I .
4537	ø	PREP FOR & SUPPORT AZ THERMAL VAC CALIB TESTS TRR	5305	03-7350	9	5 d				
4538	១	PREP FOR & SUPPORT A1 MOMENTUM COMP TEST TRR	5307	03-7350	9	20 d			5/5	
4539	g	COMPLETE A1 MOMENTUM COMP TEST REPORT	5308	03-7350	9	6.25 d			6/21 ====================================	Z 62
4540	5	PREP FOR & SUPPORT A2 MOMENTUM COMP TEST TRR	5309	03-7350	9	8 d			5/10 - 5/19	
4541	9	COMPLETE AZ MOMENTUM COMP TEST REPORT	5310	03-7350	9	p 9			6/1 🗀 6/8	ζ= Μ
4542	9	PREP FOR & SUPPORT A1 WEIGHT & CG TRR	5311	03-7350	9	5 d			6/1 □ 6/8 ₺	
4543	G	PREPAHE A1 PSR DATA PACKAGE	6488	03-7350	9	20 d	Ĺ		5/24	▼
.4244	O	PREPARE A1 CALIBRATION LOG BOOK	5312	03-7350	9	24 d			6/11	7/15
4545	ŋ	PREP FOR & SUPPORT A2 WEIGHT & CG TRR	5313	03-7350	9	p 9			5/10 □ 5/17	
4546	5	PREPARE A2 PSH DATA PACKAGE	6489	03-7350	9	18 d			5/3 5/26	(= /
4547	១	PREPARE A2 CALIBRATION LOG BOOK	5314	03-7350	9	20 d			5/25 6/22	
4832	5	S/N 107 A1Turbo Chamber Refurbishment	387	03-7350	5	5 d	7		6/10分台 6/14	
Teams:	A,G,H=	Teams: A,G,H = SEIT B = Antenna C = Electronics D = Receiver E = Mech/Thermal F = PLO	18						Aso	As of 3/29/99

		AMSU-A 90 DAY WINDOW SCHEDULE	WIND	OW SC	뽔	DULE		
0	Team	Name	Act ID	Cost Acct	WP	Dur Cal		Mar '99 Apr '99 May '99 Jun '99 Jul '99 1 8 15 22 29 5 12 19 26 26 26 26 26 26 26 2
5043	g	S/N 107 A2 WC-1 Chamber Refurbishment	802	03-7350	01	2 ps		5/24}□ 5/28
5083	g	S/N 107 SYSTEM TEST PREP & SUPPORT	5315	03-7350	10	*####		4/12
5084	5	A1 EMI/RFI TEST PREPARATION	5316	03-7350	5	2 d		4/12 \$_4/16 &
5085	g	A1 EMI/RFI TEST REPORT	5317	03-7350	9	12.5 d	1	4/30
5086	g	A2 EMI/RFI TEST PREPARATION	5318	03-7350	2	5 d	\$	4/19}□ 4/23
5087	O	A2 EMI/RFI TEST REPORT	5319	03-7350	5	15 d		5/12
5088	5	PREP FOR & SUPPORT A1 VIB TEST TRR	5320	03-7350	5	3 d		4/26·0 4/28 😘
5089	G	A1 VIB TEST ANALYSIS/TREND DATA	5321	03-7350	9	3.75 d		57 🗀 5/12
2090	O	A1 VIB TEST REPORT	5322	03-7350	5	15 d		5/13 6/3 • 🕈 🕆
5091	5	PREP FOR & SUPPORT A2 VIB TEST TRR	5323	03-7350	5	10 d	7	} 4/19 ☐ 4/30
5092	g	A2 VIB TEST ANALYSIS/TREND DATA	5324	03-7350	9	8.75 d		5/19 (1/9 ⊕ €/1)
5093	O	A2 VIB TEST REPORT	5325	03-7350	9	15 d	,	5/20 ────\$/11} ▶ ᠿः
5094	g	PREP FOR & SUPPORT A1 AMB THERMAL CYCLE TESTS TRR	5326	03-7350	10	*####		4/13(5/5 ().
5095	g	A1 THERMAL CYCLE TREND DATA	5327	03-7350	2	6.25 d		5/17 🗀 5/25
2096	O	PREP FOR & SUPPORT A2 AMB THERMAL CYCLE TESTS TRR	5328	03-7350	9	*####		4/21 5/10
2097	5	A2 THERMAL CYCLE TREND DATA	5329	03-7350	2	7.5 d		6/3 - 6/14 4 4
5098	5	PREP FOR & SUPPORT A1 THERMAL VAC CALIB TESTS TRR	5330	03-7350	9	12.5 d		5/7 (\$\)
5099	O	PREP FOR & SUPPORT A2 THERMAL VAC CALIB TESTS TRR	5332	03-7350	10	10 d		♣ 5/19 ← 6/3
5100	g	PREP FOR & SUPPORT A1 MOMENTUM COMP TEST TRR	5334	03-7350	9	20 d		2)
5102	g	PREP FOR & SUPPORT A2 MOMENTUM COMP TEST TRR	5336	03-7350	10	20 d		- 4 6/3 (1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1
5107	g	PREP FOR & SUPPORT A2 WEIGHT & CG TRR	5340	03-7350	10	6.25 d		6/22 📑 6/30
5108	Ø	PREPARE A2 PSR DATA PACKAGE	6516	03-7350	Б	20 d		6/15 (
5701	g	S/N 108 A2 WC-1 Chamber Refurbishment	771	03-7350	5	6.25 d 7		6/29 🗖 7/5
5739	5	S/N 108 SYSTEM TEST PREP & SUPPORT	5342	03-7350	2	****		6/22
5742	g	A2 EMI/RFI TEST PREPARATION	5345	03-7350	5	10 d		6/22 7/7
5747	g	PREP FOR & SUPPORT A2 VIB TEST TRR	5350	03-7350	2	15 d		6/22{ (
5755	O	PREP FOR & SUPPORT A2 THERMAL VAC CALIB TESTS TRR	5359	03-7350	2	20 d		(4/29 €//20
Teams:	A,G,H	Teams: A,G,H = SEIT B = Antenna C = Electronics D = Receiver E = Mech/Thermal F = PLO	19					As of 3/29/99
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AMSt Baseline Milestone ① Task Task Task Test Te
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March '99 Monthly Analysis Antenna Subsystem

Current Status

The Serial Number 108 A1 Antenna Assembly has increased its slack time from 0 days to 1 day. The Antenna Pattern testing of the A1 108 is complete and final assembly is in process.

The Serial Number 109 A1 Antenna Assembly has slipped from 12 days slack to 4 days slack. This was due to schedule changes made to accommodate the Serial Number 108 A1 Antenna Assembly which have affected both the Serial Number 109 A1 and A2.

The Serial Number 109 A2 Antenna Assembly pattern testing is in process. The slack time on the Serial Number 109 A2 has increased from 0 days to 4 days.

Major Float Changes

The Serial Number 109 A1 slack time has been reduced by 8 days and the Serial Number 109 A2 slack time has increased by 4 days.

Existing Problem Areas

None

Potential Problem Areas

March '99 Monthly Analysis Receiver

Current Status

S/N 107 A1-2 Receiver – Accepted and integrated into instrument.

S/N 107 A1 Receiver - Accepted and integrated into instrument.

S/N 108 A2 Receiver - Accepted and integrated into instrument.

S/N 108 A1-1 Receiver – In Thermal Cycle testing

S/N 108 A1-2 Receiver – Accepted – in stock.

S/N 109 A2 Receiver – Awaiting thermal Cycle testing.

S/N 109 A1-1 Receiver – In assembly.

S/N 109 A1-2 Receiver - In Assembly.

Major Float Changes

S/N 108 A1-1: Float went from 71 days to 45 days due to replacement of PLO and (-7) DRO during thermal cycle testing.

S/N 108 A1-2: Float was 78 days and unit is now complete and accepted.

S/N 109 A1-1: Float went from 82 to 53 days due to transfer of (-7) DRO to 108 A1-1. (-7) DRO for this shelf is now in rework at Filtronics.

S/N 109 A1-2: Float went from 96 to 75 days due to (-8) DRO still in rework at Filtronics.

S/N 109 A2: Float went from 67 to 41 days due to test resource priority given to 108 A1-1.

Existing Problem Areas

None.

March '99 Monthly Analysis PLO

Current Status

202: EOS PLOs

F01: Complete. F02: Complete.

Verification Report is complete.

105: METSAT 1 PLOs

F03: Complete.

F04: Complete.

Verification Report is complete.

106: METSAT 2 PLOs

F07: Complete.

F08: Complete.

Verification Report is complete.

107: METSAT 3 PLOs

F09: Completed 11/19/98

F010: Completed 11/12/98.

Verification Report is complete.

108: METSAT 4 PLOs

F06: Completed

F11: Completed Verification Report is in progress.

109: METSAT 5 PLOs

F14: Final assembly.

Major Float Changes

• 109 float went from 98 days to 58 days due to reduced resource availability during the month

• Potential Problem Areas

March 1999 Monthly Analysis Electronics

Current Status

Electronics effort during this month centered around Signal Processor Retest, and DC-DC Converter flight unit production.

Major Float Changes

None

Existing Problem Areas

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March '99 Monthly Analysis SEIT Team

Current Status

EOS S/N 202 A1 has been delivered. EOS S/N 202 A2 has been delivered.

METSAT S/N 105 A1 has completed thermal vacuum calibration, weight and CG, and final cleaning and is installed in the shipping container.

METSAT S/N 105 A2 has completed thermal vacuum calibration, weight and CG, and final cleaning and is installed in the shipping container.

METSAT S/N 106 A1 completed EMI testing and is in preparation for Vibration.

METSAT S/N 106 A2 Vibration anomaly has been resolved and the unit is in functional retest prior to completion of Qual Vibration.

METSAT S/N 107 A2 has completed engineering CPT and is in final assembly for Baseline CPT.

METAT S/N 107 A1 completed Engineering CPT and is in final assembly for Baseline CPT.

METSAT S/N 108 A2 completed initial system assembly and started System Integration Testing.

Major Float Changes

METSAT S/N 106 A2 pre-planned schedule reserve float went from 78 to 14 days and 107 A2 from 1 to 72 days float due to switching back to 106A2 in the next ship set instead of 107A2 as was planned last month.

Existing Problem Areas

None

Potential Problem Areas

								
REPORT DOCUMENTATION PAGE						Form Approved OMB No. 0704-0188		
Public reporting burden fothis collection ofinformation is estimated average 1 hour per response including the timefor reviewing instructions searching existing data sources gathering andmaintaining thedata needed and completing andreviewing the collection information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestion reducing this burden to Washington Headquarters Services Directorate for Information Operations and Reports, 1215 Jefferson collection of information, including suggestion reducing this burden to Washington Headquarters Services Directorate for Information Operations and Reports, 1215 Jefferson Collection Project (0704-0188). Washington, DC 20503. Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188). Washington, DC 20503.								
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